

CHAD
Community-Based Ecosystem Management Project

GEF Project Document

Africa Regional Office
AFTS3

<p>Date: May 18, 2005 Sector Manager: Joseph Baah-Dwomoh Country Director: Ali Khadr Project ID: P078138 Focal Area: M - Multi-focal area</p>	<p>Team Leader: Valerie Marie Helene Layrol Sector(s): General agriculture, fishing and forestry sector (100%) Theme(s): Biodiversity (P), Water resource management (S), Other environment and natural resources management (S)</p>
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Project Financing Data

Loan Credit Grant Guarantee Other:

For Loans/Credits/Others:

Amount (US\$m): US\$6.00 Grant

Financing Plan (US\$m):	Source	Local	Foreign	Total
BORROWER/RECIPIENT		17.11	0.00	17.11
IDA		34.43	5.33	39.76
GERMANY: BMZ		16.00	6.00	22.00
LOCAL COMMUNITIES		3.60	0.00	3.60
FRANCE: FRENCH AGENCY FOR DEVELOPMENT		2.45	3.00	5.45
GLOBAL ENVIRONMENT FACILITY		4.90	1.10	6.00
Total:		78.49	15.43	93.92

Borrower/Recipient: GOVERNMENT OF CHAD

Responsible agency: MINISTRY OF LAND MANAGEMENT, URBANISM AND HABITAT

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P078138 Estimated Disbursements (Bank FY/US\$m):

FY	2006	2007	2008	2009	2010				
Annual	0.50	1.20	1.70	1.90	0.70				
Cumulative	0.50	1.70	3.40	5.30	6.00				

Project implementation period: 4 years

Expected effectiveness date: 09/30/2005 **Expected closing date:** 03/31/2010

A. Project Development Objective

1. Project development objective: (see Annex 1)

In 2004, the World Bank approved a Local Development Program Support Project (PROADEL) to assist the Government of Chad to complete the decentralization framework and to design and implement a decentralized, participatory financing mechanism that can empower local communities and decentralized authorities to manage funds for local development. PROADEL will achieve these goals 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. PROADEL is viewed by the Government as the key mechanism to support decentralization and community development under the framework of its Rural Development Support Framework (PIDR). Under the umbrella of the PIDR, the World Bank is also addressing agricultural productivity growth, marketing, and cotton sector reform through the complementary Agricultural Services and Producer Organizations Support Project (ASPOP), while the German Cooperation is supporting decentralized rural development through more targeted programs in particular geographical sub-regions (e.g. the PRODALKA and PRODABO programs).

The GEF Community-Based Ecosystem Management Project under the Local Development Program Support Project, will complement all of the four components of the PROADEL, as well as some associated aspects of the other baseline projects ASPOP, PRODABO and PRODALKA. As the PROADEL is structured as an APL, the elaboration of GEF activities has been designed to follow a parallel approach that is structured, yet long-term in outlook and phased in stages. Therefore, while this Project Brief outlines the parameters of a first phase of GEF interventions, it is assumed that in subsequent phases an expansion and replication of these would be developed, covering a much larger cross-section of the country's most fragile ecosystems, and that a consolidation of institutional and policy reforms as well as environmental monitoring capacity could be supported. This parallel phasing also takes into account a shared strategy with the Government of Chad that the integration of ecosystem management approaches and methodologies into community-based planning will not only improve the design of individual PROADEL components, but also serve as durable framework under which a range of new interventions and collaborations can be coordinated at the national level.

Specific development Objectives of the GEF Project:

The objective of the GEF Community Based Ecosystem Management Project is to restore some of the Recipient's most fragile ecosystems by enabling local communities to better fight desertification, rehabilitate degraded lands and protect biodiversity. It will be fully integrated into the design and implementation of the first phase of the PROADEL, whose development objective is to reduce poverty, promote sustainable rural development, and establish a participatory, decentralized financing mechanism for community-driven development initiatives.

The primary vehicle to achieve this objective will be financial and technical support for community-driven, integrated environmental management plans and subprojects that can simultaneously address local development needs and both local and global environmental challenges. The project will also contribute to building national capacity to monitor ecosystem quality and trends, particularly as they relate to biodiversity and land degradation.

These objectives would be achieved through the following activities:

- co-financing of demand driven community-based subprojects that improve or restore local

ecosystems and that promote better natural resource management, with an emphasis on activities that promote biodiversity conservation and land management ;

- support for the adoption and dissemination of new technologies and practices relevant to integrated ecosystem management, biodiversity protection, and soil fertility and restoration ;
- elaboration of participatory management schemes for targeted ecosystems that include measures to enhance the integrity of key protected areas in priority GEF zones ;
- training and pilot programs to build capacity and know-how, particularly among riparian communities in priority intervention areas ;
- efforts to create a conducive enabling environment for community-based ecosystem management, including improvements to the regulatory and legislative framework ;
- technical and material support to improve the environmental monitoring and enforcement capacity of local actors, including decentralized agents of the Ministry of Environment and Wate ;
- implementation of a monitoring and evaluation system and integration of land degradation and biodiversity protection indicators into the rural sector monitoring scheme.

2. Key performance indicators: (see Annex 1)

Very specific key performance indicators for the project's global biodiversity protection (e.g., level of threat of endangered species reduced by at least one category) and sustainable land management objectives (e.g. number of hectares under active reforestation or sustainable forest management) will be developed and tailored for each of the GEF priority zones. These site-specific key indicators will include the following broad parameters: (i) the number of hectares of land protected from environmental threats (e.g., deforestation, soil degradation, brush fires); (ii) changes in the populations of, or level of threat posed to, targeted species of global importance, and (iii) evidence of improved or renewed ecosystem health (e.g., water quality, soil fertility, vegetative cover). Progress toward the project development objective will be also measured by more process-oriented key performance indicators: percentage of targeted communities integrating IEM principles and activities into local development plans (LDPs); number of types of different ecosystems under effective, participatory management; number of communities and intra-community associations capacitated to manage their ecosystems; percentage of LDPs in targeted areas that actively promote conservation of globally significant biodiversity or joint management of protected areas; rate of incremental adoption of sustainable agricultural techniques in targeted areas. More detailed indicators are provided in Annex 1.

In addition, the following indicators will be used as triggers for the second phase :

- At least three ecosystem management schemes have been conceived ;
- At least 40% of the subprojects approved for GEF incremental financing have received their first tranche of financing ;
- At least 10% of the Local Development Plans (LDPs) in the targeted priority zones contain subprojects eligible for GEF grant co-financing ;
- At least 2 legal texts are adopted, signed and made publicly available: the application of Law 14 upon which project success depends, and the Law 16 on forestry, fauna and fishing ;
- The feasibility study for the National Observatory for Natural Resources Monitoring has been completed and approved ;
- Well-defined parameters and methodologies for integrating soil degradation and biological diversity into the monitoring and evaluation system of the PIDR are in place.

B. Strategic Context

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

Document number: 26938-CD **Date of latest CAS discussion:** December 11, 2003

The World Bank Group's Country Assistance Strategy presented to the Board on December 11, 2003, aims to help Chad make the best possible developmental use of its new oil revenues (and public resources more broadly) notably by (i) strengthening governance, including institutional arrangements for public resource management and service delivery; and (ii) enhancing non-oil economic opportunities while reducing sources of vulnerability, notably for the poor. The PROADEL and the proposed Community Based Ecosystem Management Project squarely supports the Bank's CAS, which among other things emphasizes reducing poverty through more sustainable natural resource management and agricultural production. The project would support the two CAS pillars by expanding opportunities for the poor, empowering communities to formulate their needs and to better manage their lands and environments. Through this project, the Bank seeks to contribute to the following result: at least 50 subprojects benefiting communities and addressing natural resources management issues are implemented based on their approved Local Development Plans. Moreover, the project will contribute to the decentralization process, an important element of the first pillar of the CAS.

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

The project's global environmental objective is to enable local communities to combat desertification and rehabilitate degraded lands and to preserve globally-significant biodiversity. As global environmental benefits in multiple focal areas are expected to be generated in some of the country's most fragile ecosystems—particularly in the area of biodiversity conservation and sustainable land management—the project's global operational strategy is aligned to support the aims and targets of GEF's OP Objective #12, and its successful implementation will bolster GEF's overarching priorities as outlined in the Strategic Business Plan. Specifically, the project will contribute to OP#12 Strategic Priorities by increasing institutional and local capacity to implement integrated ecosystem management, and through community-based investments based on stakeholder participation and needs that can deliver both domestic and global environmental benefits. In promoting (or introducing, in many cases) holistic approaches to environmental management, the project will also contribute to GEF strategic priorities under the biodiversity focal area, stabilizing fragile ecosystems and catalyzing community participation in the management and monitoring of biodiversity in indigenous areas. The integrated ecosystem management approach aims to reach a balance in the interlinked objectives of: conservation; sustainable use; and the fair and equitable sharing of the benefits arising out of the utilization of natural resources. In this way, the project will advance the Government of Chad's commitments under a number of international environmental conventions, particularly the UN Convention on Biological Diversity (UNCBD), the UN Convention on Desertification (UNCCD), and the UN Framework Convention on Climate Change (UNFCCC).

2. Main sector issues and Government strategy:

Main sector issues

Issue 1: Fragile ecosystems and loss of biodiversity. 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. Most of Chad's critical ecosystems are either not formally protected, or ineffectively protected due to a lack of resources; moreover, while environmental protection is a national priority, for much of the population, meeting basic needs is a more urgent priority. As a result, these unique ecosystems are at risk of serious and irreversible degradation, stemming from poor management of water resources, the progressive depletion and declining fertility of agricultural soils, the extensification of agricultural production, and the encroachment of human settlements on natural habitats. For example, the Lake Chad Basin, which supports a mosaic of societies and cultures to sustain agricultural and pastoral activities, has been under marked pressure from desertification and environmental degradation accelerated by demand for land and water. Other rivers, lakes, and oases provide key habitats for numerous species, many of which are endemic and endangered. According to the UNEP World Conservation Monitoring Center, 6 animal species are currently critically endangered (including the addax, the northern white rhinoceros and the black rhinoceros), 6 are endangered (including the Addra and Rhim gazelle, the giant otter, the saker falcon, the African wild dog, and the elephant) and 16 are 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. In the Sahelian zone, elephants, ostriches and certain waterfowl species 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, but are 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.

Issue 2: Desertification, land degradation, and land-use conflicts. Desertification, soil degradation, deforestation and decline in the quantity and quality of water resources are phenomenon that have worsened in Chad over the last thirty years. The seriousness of these threats is mounting and their socioeconomic effects are becoming increasingly evident. Although Chad signed and ratified the UNCCD and has elaborated an accompanying National Action Plan (NAP) partially integrated into key rural development strategies, financing, capacity, and coordination barriers have checked a scale up in the implementation of activities that could generate a measurable reversal in land degradation trends. Land-use conflicts between pastoral and agricultural activities have intensified, contributing to migration pressures and undermining social cohesion. Production capital is threatened and in some cases already compromised by land degradation and soil erosion, deforestation, and desertification, subjecting the population in several areas to precarious economic conditions and sometimes forcing them to migrate. The perpetuation of open-access land-use policies threatens the integrity and sustainability of Chad's natural assets, particularly its forests, woodlots, and pasturelands. Brush fires, an unsystematic distribution of water points, and lack of respect for existing grazing corridors are threatening biodiversity in the pasturelands. With population growth and migration (particularly in the Sudanian zone), natural vegetation in wetlands, prairies, and woodlands are being systematically cleared for food production. Demographic pressures and the growing pains of economic development are creating a vicious cycle of mounting ecological damage and low rural productivity. To meet basic human energy needs, almost the entire population depends upon the unsustainable consumption of wood fuel and charcoal. 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. As a result, “rings” of desertification and deforestation have developed around major population centers (e.g., N’Djamena, Moundou, 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. These patterns are reinforcing poverty and curbing the future economic growth potential of the country, particularly in the rural sector.

Issue 3: Weak organization of rural communities and limited involvement in decisions concerning their development. 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. While Chad's development priorities emphasize the imperative to ensure the long-term health and productivity of its natural resource base, and the Government of Chad supports policies that integrate natural resource management into decentralized structures and plans, the process of decentralization is still in its early stages. Only a few projects have set up informal local development decision bodies, but they remain in the pilot stage and depend on donors for financial support. A weak framework for 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. Likewise, the Chadian legal framework regarding environmental management discourages participatory environmental management schemes and could benefit from some additions or modifications, especially those pertaining to land tenure and security.

Issue 4: Weak local capacities, and limited technical and environmental knowledge base. National capacity to manage natural resources and ecosystems, particularly protected areas and their buffer zones, is very limited. One of the principal constraints to the protection of Chadian ecosystems includes weak capacity for monitoring and enforcement of the protection of protected areas, including lack of equipment of personnel of the Ministry of Environment and Water (MEE). 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. Training decentralized agents of the MEE and traditional authorities in the management of ecosystems is minimal, and there are few means to undertake surveys and inventories of indigenous species and other natural assets. 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. 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 greenhouse gas emissions and promoting carbon sequestration. Exacerbating this is the limited information basis for long-term environmental monitoring and decision-making, particularly in the rural space. Only basic data on protected areas is available, while wildlife censuses in many areas 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.

Additional information regarding the main challenges and barriers to promoting decentralized natural resources management and community-based IEM is provided in Annex 4 (Incremental Cost Analysis).

Government's strategy

The Poverty Reduction Strategy. 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; rural areas must be the primary target of interventions aimed at reducing poverty and increasing growth. The Government of Chad adopted its Poverty Reduction Strategy Paper (PRSP) in June 2003. The GEF project is designed to support the implementation of the PRSP, whose five axes touch upon many of its core objectives, including promoting good governance and the restoration

and conservation of fragile ecosystems. The project will advance participation of rural communities in local development and the establishment of linkages between decentralization and ecosystem management, which is a strategic objective of the PRSP.

Rural Development Strategy. The Government's rural development strategy was presented to donors at the Geneva IV Sectoral Consultation on Rural Development in June 1999. Its objective is to increase production in a sustainable way that preserves the environment while reinforcing institutional and human capacities. The key elements of the rural development strategy are: (i) increasing agricultural productivity in a sustainable manner; (ii) supporting development of competitive supply chains; (iii) promoting sustainable management and development of natural resources; (iv) improving promoting the rural sector; (v) and improving the efficiency of the public sector. Concerning the promotion of natural resources and rural productivity, the strategy emphasizes the following aspects: (i) the consultation and consensus-building with rural communities; (ii) the promotion of better soil and water management; (iii) the participatory management of the rural space, conservation of biodiversity, and prevention of desertification and deforestation under an integrated ecosystem management approach; and (iv) the integration of priority national actions and strategies under major international environmental conventions in local and regional development plans.

National Environmental Action Plan (NEAP). The NEAP, elaborated with the assistance of UNDP and the World Bank, defines the Government of Chad's broad strategic principles and establishes its long-term priorities for environmental protection. The NEAP seeks to establish a collaborative framework for the implementation of activities by the Government, international partners, and NGOs, while raising awareness and increasing the participation of all stakeholders in sustainable natural resource utilization. Through a comprehensive analysis of the state of the environment in all domains, Chad's NEAP advocates several measures to enhance the management of the country's fragile ecosystems. The NEAP is expected to be executed on the ground through local village, cantonal and departmental development plans, taking into account local needs through cross-sectoral planning. Indeed, a number of the priorities covered under the NEAP would be addressed in the implementation of the GEF Community-Based Ecosystem Management project and selected aspects of the baseline projects under the PIDR. The NEAP and relevant associated legislation will soon be adopted as official government policy.

National Biodiversity Protection Strategy and Action Plan (BSAP). The Government of Chad ratified the UNCBD in 1994, and under the direction of the High National Committee on the Environment subsequently developed a National Biodiversity Protection Strategy and associated Biodiversity Strategic Action Plan (BSAP). The overall thrust of these are to ensure for the sustainable exploitation of biodiversity in Chad, taking into account the development aspirations of the population and reconciling the objectives of local economic development with those of biodiversity conservation. The BSAP highlights the urgent need to develop and apply innovative and holistic approaches toward the management of environmental resources, attitudes, behaviors and initiatives. Its five core objectives are to: (i) improve knowledge and monitoring of biological diversity; (ii) inventory ecosystems and threatened species and reduce criminal acts (in particular bush fires) in and around protected areas; (iii) increase use of substitution resources, including consumption of wood energy; (iv) adopt techniques for a more sustainable exploitation of agriculture, fisheries, and forests in order to conserve biodiversity; and (v) promote a more equitable sharing of the benefits of biodiversity exploitation and promotion of collective responsibility and community-based actions to promote biodiversity conservation.

National Action Plan Against Desertification (NAP). The Government of Chad signed the UNCCD in September 1997 and adopted its National Action Plan (NAP) to combat desertification (Plan d'Action National de Lutte Contre la Désertification) in September 2002. The NAP aims to safeguard Chad's most important and threatened ecosystems, while improving national policies and capacity to preserve the production potential of land and water and to mitigate the effects of drought. The NAP has four overarching objectives: (i) to protect, restore and develop Chad's productive potential to achieve sustainable agriculture and livestock production, protected and enhanced fisheries, and to promote human habitat planning in a manner respectful of the environment; (ii) to protect and safeguard important and threatened ecosystems, in particular, Lake Chad, Lake Fitri, the Ouadis, the oasis and the koro lands ; (iii) to build human capacities and adapt legal and institutional frameworks to combat desertification, particularly among rural populations, NGOs, and public agencies ; (iv) to manage risks and uncertainties exacerbating the fragility of ecosystems and human-induced drivers of land degradation. A National Coordination Committee and focal point attached to the Cabinet of the MEE (established by decree No 0041MET/DG/95) ensures the coordination, implementation and follow-up of urgent actions. Regional and local committees have also begun to formulate regional action plans. Through the GEF project, national and regional NAP priorities will be better integrated into local development plans in priority areas.

Ramsar Convention on Wetlands. Under the Ramsar Convention, which the Government of Chad ratified in 1990, three wetlands whose ecological services are of global significance and national importance were identified in the country: the Chadian part of the Lake Chad, the Logone River flood plains, and Mayo-Kebbi watershed basin. With the assistance of WWF, an inventory of these areas was carried out in 2000. As a Party to the Convention, the Government of Chad is obliged to support the conservation and the rational use of these wetland areas, some of which are contained within the GEF project's priority intervention zones.

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

Activities under the project would address the main issues described in B.2, as follows:

Issue 1: Fragile ecosystems and loss of biodiversity. The natural resource management practices of the communities participating in the PROADEL and other decentralized development programs under the PIDR have the potential to positively or negatively impact some of the country's most environmentally fragile areas. The project will support investments and capacity-building activities that will improve the conservation of key ecosystems and the implementation of community-based integrated ecosystem management plans that address biodiversity conservation and land degradation (e.g., community forestry, pilot pastoral projects, soil erosion management, and fertility enhancement techniques). Through activities geared towards increasing the fertility and management of agricultural and pastoral lands, the project will complement baseline poverty-reduction and vulnerability-reducing activities, a root cause of ecosystem deterioration. The project would also support the planning, financing, and implementation of intra-community environmental management schemes, such as jointly-managed protected areas and watershed management plans.

Issue 2: Desertification, land degradation, and land-use conflicts. Capacity building and investments in disseminating improved land management technologies and practices will enhance soil fertility, reduce erosion and water run-off, improve carbon retention in soils, and improve landscape planning and management. Targeted research in the project preparation phase has identified the most appropriate, economically viable sustainable land management interventions in each priority intervention zone. In the environs of Mondou, the second largest city, sustainable woodfuel management and commerce

through the introduction of user fees/taxes will be promoted, as well as alternative energy carriers and more efficient cook stoves. Land tenure issues and legislation would receive special attention in the design of intra-community ecosystem management plans.

Issue 3: Weak organization of rural communities and limited involvement in decisions concerning their development. Currently, only limited funding mechanisms exist to support natural resource management and integrated ecosystem management processes at local levels and few micro-finance programs have ever focused on environmental issues. The project would finance physical, socioeconomic and productive investments identified and managed by local communities to improve their local ecosystems, while building the managerial and planning capability of those communities and increasing transparency and accountability at the local level. The involvement of women and other underprivileged groups (youth, transhumant herders) in their community's development planning would receive particular attention. Project activities will address sustainability constraints by "institutionalizing" decentralized development funding mechanisms for environmental management activities, including micro-investments eligible for support under future oil revenue-sharing plans. In addition, the project would support reforms to the legislative and regulatory framework to promote the transfer of natural resource management to communities and strengthening the capacity of decentralized technicians responsible for environmental protection to work with communities on joint conservation activities. The project would also assist recognized decentralized entities to adopt sound economic and fiscal frameworks to sustain the protection and restoration of fragile ecosystems.

Issue 4: Weak local capacities, and limited technical and environmental knowledge base. A unique training strategy has been developed to involve communities and marginalized groups in natural resource management and biodiversity conservation, and to ensure that local actors have the capacity to contribute to the design of ecosystem management planning and implementation. 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 project would expand the scope and national coverage of existing environmental management information systems, promote new tools for monitoring and evaluating the ecosystem trends (i.e. national Geographic Information System panel database). In addition, support will be provided to integrate key parameters on biodiversity conservation and land management into the Rural Development Monitoring System.

Key strategic choices made during project preparation and design were to:

Mainstream IEM into participatory, decentralized development planning by linking GEF incremental activities to PROADEL. The GEF project has been designed to complement and support the Government's Rural Development Support Program (PIDR), by overlapping IEM approaches into community-based development planning. This strategy will create synergies with, and is fully consistent with the implementation strategies of, Chad's NEAP and other key environmental policies relating to biodiversity conservation and ecosystem management. A participatory approach toward project preparation and implementation will demand decentralized powers and resources at the lowest level of intervention. The core thrust of GEF activities run in parallel to all the four components of PROADEL: (i) co-financing integrated ecosystem management sub-projects, mainly in GEF 'priority zones' and excluding any projects on the PROADEL 'negative list'; (ii) integration of IEM into local planning exercises and capacity building in natural resources and ecosystem management in targeted communities; (iii) assessment and potential modifications of the regulatory framework to promote community-based IEM and joint management of protected areas; and (iv) M&E of ecosystem trends, in particularly biodiversity loss and land degradation, in the context of the rural development monitoring system.

Maintain appropriate balance between a 'top-down' and 'bottom-up' approach toward interventions. Local development plans formulated by communities and accompanying capacity building will be the project's primary vehicles to balance tensions between 'top down' and 'bottom up' approaches to ecosystem management. Through sensitization programs and participatory diagnosis and monitoring of local ecosystems, communities will have input into the design of scientific studies and potential legal and regulatory reforms undertaken at more 'top down' levels. In addition, conventions or charters established among riparian communities will ensure that communities are fully vested and can coordinate in the identification and implementation of eligible subprojects at both the community and communal levels.

C. Project Description Summary

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

The project has four components: (i) Financial support for community-based ecosystem management subprojects, (ii) capacity building for integrated ecosystem management, (iii) support for an enabling environment for community-based ecosystem management, and (iv) management and monitoring support.

Component 1: Financial support for community-based ecosystem management subprojects

The GEF project will co-finance subprojects to support community-based ecosystem preservation and natural resource management activities within the GEF Priority Zones. Eligibility will be restricted to activities that are requested by communities and fit into their Local Development Plans (prepared under the baseline) and the ecosystem management schemes (prepared under Component 2). Some of the activities likely to be eligible include, *inter alia*: the reforestation and rehabilitation of gallery forests; development of grazing corridors; community co-management of protected areas; introduction of agro-forestry techniques; development of local drought management plans and bushfire awareness and control programs; and pilots to demonstrate or disseminate more sustainable, alternative energy technologies and practices, such as more efficient cooking stoves. To avoid capture of resources by elites, the project would ensure that every process (subproject identification, selection, and implementation) is participatory and management of resources is transparent. To ensure sustainability of investments, beneficiary contributions would be mandatory, with local maintenance responsibility.

Component 2: Capacity building for integrated ecosystem management

Subcomponent 2.1: Integrated Ecosystem Management Schemes

The GEF grant will support collaboration between key stakeholders to pursue integrated ecosystem management priorities at larger scales and to prepare sustainable and long-term ecosystem management schemes in GEF priority zones, through the provision of technical and organizational assistance. This will include (i) binding charters or conventions between riparian communities that codify their intent to cooperate and co-manage fragile ecosystems in partnership with local government, traditional local authorities, and decentralized agents of the MEE, and (ii) identifying beneficial subprojects that could be implemented at the community level.

Subcomponent 2.2: Training of actors

The project will support training activities to the benefit of the communities and technical service agencies on ecosystem management. Specific training will be elaborated, such that the

conceptualization of subprojects (i.e. those aimed at reducing soil erosion, maintaining forest cover, promoting local tourism) can address biodiversity conservation and broader ecosystem challenges, such as watershed management. The project would disseminate an Integrated Ecosystem Management Guideline Document as a capacity building tool for consolidating approaches in local development planning.

Component 3: Support for an enabling environment for community-based ecosystem management

Subcomponent 3.1: Improvement of the legal and regulatory framework

This would consist of analytical support to establish a sound legal and regulatory framework for community participation in environmental management and joint management of protected areas. Some of the more urgent priorities are to support the application of the Forestry and Fauna Law, the extension of law 16 on the taxation of forest resources to the other cities of the country, and the finalization of the decrees of Law 14/98. The project will also assist in the validation, awareness raising, and support for campaigns to advocate for these reforms by and among communities.

Subcomponent 3.2: Institutional support

Support would be extended to better identify capacity needs and fiscal reforms necessary to implement the legal and regulatory reforms advanced in subcomponent 3.1, particularly among the relevant line ministries. As with subcomponent 3.1, advocacy campaigns to effect more decentralized in environmental governance and the validation by communities of selected reform measures would be supported on a demand-driven basis. In addition, institutional and technical capacities of MEW would be strengthened under this sub-component, to improve skills and monitoring and enforcement powers.

Subcomponent 3.3: Sustainable financing

This subcomponent will support the promotion of partnerships between communities and external sources of financing outside of the GEF to sustain ecosystem management schemes. Sources of financing to be targeted include. The project will prioritize (i) the support to the Government for the definition and implementation of a National Fund for the Environment, and (ii) the support for the development of a framework for community partnerships that could assist communities to identify long-term co-financing of ecosystem management activities, enhance cooperation with international foundations and NGOs, manage their legal and financial interests vis a vis potential international partners and private companies, and design pilot projects eligible for international investment under emerging environmental market schemes, such as carbon finance.

Component 4: Management and monitoring support

Subcomponent 4.1: Support to project management

Day-to-day management of project activities would be assured by the PMU of the PROADEL and additional staff would be recruited by the Ministry of Land Management, Urbanism, and Habitat: a GEF Specialist, an GEF accountant and an assistant for monitoring and evaluation.

Subcomponent 4.2: Support to project monitoring and evaluation

This subcomponent will finance the monitoring and evaluation of the project's impacts as well as the outcomes of its investments in community based ecosystem management projects.

Subcomponent 4.3: Monitoring of ecosystem management at the national level

The project will strengthen the monitoring and evaluation system of ecosystem management at the national level, through inter alia supporting a feasibility study for the establishment of a National

Observatory of Natural Resources.

The table below shows the allocation of the grant proceeds among project component. These allocations do not include the US\$ 23 million of the IDA Grant to which this GEF project is partially blended.

Component	Indicative Costs (US\$M)	% of Total	Bank financing (US\$M)	% of Bank financing	GEF financing (US\$M)	% of GEF financing
Financial support for community based ecosystem management subprojects	2.70	39.3	0.00	0.0	2.50	41.7
Capacity building for integrated ecosystem management	1.86	27.1	0.00	0.0	1.60	26.7
Support for an enabling environment for community-based ecosystem management	0.81	11.8	0.00	0.0	0.70	11.7
Management and monitoring support	1.50	21.8	0.00	0.0	1.20	20.0
Total Project Costs	6.87	100.0	0.00	0.0	6.00	100.0
Total Financing Required	6.87	100.0	0.00	0.0	6.00	100.0

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

As the underlying basis for economic growth in Chad continues to improve with the transition to the oil era, it is critical that conservation and sound natural resource use frameworks are more effectively integrated into development planning, thereby precluding irreversible environmental damage and to sustain the natural capital basis upon which the country's rural population depends. Toward this end, the Government of Chad is bolstering its laws and regulations pertaining to both local environmental management and national and sub-regional protection of critical ecosystems. At the same time, the Government has been assisted by the Bank and other donors in undertaking an ambitious program of decentralization.

The GEF project would accompany and support both the decentralization and the environmental protection agendas. The project will help to secure a sound regulatory framework for decentralized environmental governance as compelled by the Chadian Constitution, and the integration of natural resource management with rural development policies and planning processes. Specifically, the project aims to implement interventions through decentralized development plans and projects conceived under the framework of the PIDR. The project will support the review of the existing legal framework for decentralized environmental governance, and promote the elaboration of decrees of application of National Law No. 14 on Environmental Protection, including regulations pertaining to exploitation and conservation of forests, wildlife and fisheries. Specifically the project will also support this policy reform through:

- promulgating laws transferring some natural resource management prerogatives to users;
- implementing the National Environmental Action Plan (NEAP) and associated legislation and reforms at the community level;
- strengthening the institutional capacity of agencies responsible for natural resources;
- installing local natural resource management committees;
- establishing an environmental information system; and
- consolidating community plans for improving household energy management in connection with biodiversity conservation initiatives.

3. Benefits and target population:

The primary target population of the GEF project is the same as those of the baseline projects, namely rural communities. Communities are defined as people living in one or several villages, districts, ferricks, or encampments, sharing use of the space and surrounding natural resources. Service providers would be contracted to support communities in participatory assessments and Local Development Plan preparation and implementation. Marginalized groups, including 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. Other beneficiaries be strengthened by the project would be decentralized authorities, non-governmental organizations (NGOs), and service providers.

For strategic reasons and resource limitations, integrated ecosystem management activities will be prioritized in a limited number of GEF priority zones in the first phase. These zones were selected in partnership with Chadian stakeholders and development partners at appraisal from among a longer shortlist, based upon an evaluation of each site against pre-defined criteria, including:

- Coverage of major environmental challenges and root causes of unsustainable development, and diversification of major ecological zones in the country
- Presence of globally significant biodiversity assets and vulnerability of local ecosystems (including evidence of extensive land degradation)
- Equitable geographical distribution of project activities and likely diversity of various types of eligible subprojects
- Assurance that GEF activities supplement and do not duplicate efforts of other projects
- Ready ability to adopt a community-based approach
- Community expression or justification of immediate needs
- Ability to quickly achieve replicable and cost-effective scale-up of results on the ground

The GEF priority intervention zones are: Lac Weye and the Moundou Charcoal Supply Basin; Binder-Léré Wildlife Reserve and Lac Léré; Bahr el Gazal; the Ouaddai-Biltine Watershed System; and the Mandalia Fauna Reserve (see additional details on these sites below). These areas encompass 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.

Sudanian Zone/Southwestern Chad – Binder-Léré Wildlife Reserve and Lac Léré

Located in the PRODALKA intervention zone, this area in the Southwestern corner bordering Cameroon envelopes the Binder-Léré Wildlife Reserve in which Lac Léré and Lac Trené are situated, another major freshwater body in Chad, as well as other protected areas, including the Yamba-Berté Forest Reserve. In addition, a network of small lakes, swamps, and flood plains along the Kebbi and Kabia Rivers serve as important buffer zones against encroaching desertification. Within the two lakes and the Binder-Léré Wildlife Reserve, a diverse number of species can be found, including: crocodile, hippopotamus, elephant, antelope, eland, red hartebeest, rare turtles, warthog, lion, ostrich, gazelle, giraffe, buffalo, and panther. Perhaps the most threatened species is the manatee, which has been spotted in the two lakes. While the area has been subject to some limited ecosystem management planning and interventions under the PCGRN, the ecosystems in the area remain highly fragile, threatened by erosion and siltation and subject to mounting ecological pressure from the expansion of agricultural and other subsistence activities, including over-grazing, poaching, and unregulated brick and charcoal production. An integrated watershed management approach, linking the two environmental objectives of land degradation and biodiversity protection, would appear to be able to ameliorate the lake ecosystem. The site already profits from the existence of Local Authorities Decision Committees (ILODs) to ensure stock management of piscicultural

species, but these have not yet undertaken any concerted activity for the protection of the water resources or the promotion of integrated watershed management. Among the community-based ecosystem management activities that could be anticipated in this zone include: (i) stabilization of the banks of the two lakes and possibly along the Mayo-Kebbi River tributary, efforts to control siltation carried from as far as the Gauthiot Falls, and measures to combat soil erosion related to agricultural activities; (ii) agroforestry, afforestation, and sustainable charcoal production activities; (iii) technical training and provision of material equipment to intensify monitoring against fish overexploitation and poaching; (iv) actions to support ecotourism, preparation of a tourist map depicting local biological diversity, training of guides and wildlife guardians; (v) sensitizing populations to avoid destruction of habitats of wild fauna, such as elephants; (vi) redefinition of the system of monitoring and control over resource exploitation; (vii) installation of regulation systems and technology to avoid pollution of the lakes.

Sudanian Zone/Southwestern Chad – Lac Weye and Moundou Charcoal Supply Basin

Located in the intervention zone of PROADEL in the vicinity of Moundou, Lac Weye is strongly threatened by pollution and land pressures. Given its proximity to the city of Moundou, its banks are eroded and its shores are being rapidly deforested to supply wood fuel to the city. Forest cover is declining and indigenous species are threatened (Derby eland, giraffe, buffalo, hippopotamus, tortoise, monkey, khaya). Despite being classified as a forest, biomass species have not been inventoried, and the area has been reduced to a state of gallery forest and scattered thicket as a result of bush fires and clearing by the local population. Agro-fishermen and pisciculturists are already organized and have profited from pilot projects in fisheries management. GEF activities would develop a concerted integrated ecosystem management scheme to conserve biodiversity while improving water and soil management, as well as better rationalizing domestic energy production and consumption, such as putting in place sustainable forest management plans, led by AEDE. Community forest management, agroforestry, and the introduction of more sustainable agricultural and charcoal production techniques could bring a variety of local benefits in this zone.

Sahelo-Sudanian Zone/Western Chad – Mandalia Fauna Reserve

The Mandalia Fauna Reserve of 138,000 ha in the periphery of Ndjaména was originally created to protect the elephant populations. However, over time, the Reserve has been increasingly subject to human occupation and cattle migrations, which has challenged its very integrity. The elephants have taken refuge in a frontier park in Cameroon, but annually return and face the hostility of the local populations. The Reserve does not benefit from any particularly strong protection measures, but ADER has carried out some mapping studies in the area. A local association is working to protect the forest and some private parties are interested in promoting the site for recreational purposes and eco-tourism.

Sahelian Zone/Northern Chad – Bahr El Gazal

PROADEL envisages intervening for its third year in this zone, whose dryland ecosystems are mainly degraded by concentration of transhumant cattle. Pastoral management pilots have been reasonably successful in this area in the past, but have yet to be scaled-up. Several potential sites exist for rehabilitation of salt curing, restoration of degraded pasture zones in the south of Moussoro, or the stabilization of the dunes close to Chaddra. Collaborations are also envisioned with local NGOs developing a new inter-community approach for the environmental protection of the ouaddis.

Sahelian Zone/Eastern Chad – Ouaddai-Biltine Watershed System

Located in the PRODABO intervention area in the far eastern area of the Sahel, the ouadis are home to most of the human settlements in the region and currently under pressure from an increased influx of refugees from the Dafur region of the Sudan. A system of intersecting watersheds can be regarded as the veritable life veins of these settlements. The GEF priority zone will encompass the Batha River and flood

plains, augmented during the rainy season by the Ouadi Hamrah and Ouadi Saria. This watercourse winds through the Cantons of Abker, Korio, and Kognere, eventually flowing toward Lake Fitri (Abker canton). In the dry season, the watershed is threatened by its use as a corridor for transhumant pastoralists, a land transport artery for agricultural products, and as a settlement area for refugees. These activities are intensifying the degradation of river banks and the siltation of the river bed. Gallery forests have been cleared to make room for agricultural production, with an average exploitation period of plots of just two years, as well as for wood fuels. Likewise, unique biomass species such as the Seyal Acacia have been pruned for fodder. Other threatened biodiversity include warthogs, desert rodents, gazelles, and savanna baboon. The intervention area is also in the proximity of a proposed new protected area, Goz-Beida.

Table 1: Tentative Priority GEF Intervention Zones and Key Environmental Threats to be Addressed

Region	Key environmental threats	GEF Priority Intervention Zones	Departments in GEF Priority Zones under PROADEL	Departments in GEF Priority Zones under PRODABO	Departments in GEF Priority Zones under PRODALKA
Sahelo-Sudanian	<ul style="list-style-type: none"> • Weak protected areas management systems • Water management • Soil erosion in hilly areas 	<ul style="list-style-type: none"> • Mandelia Fauna Reserve 	<ul style="list-style-type: none"> • Barh Signaka • Loug-Chari 		
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 and pollution control 	<ul style="list-style-type: none"> • Lac Weye and Moundou Charcoal Supply Basin • Binder-Léré Wildlife Reserve and Lac Léré 	<ul style="list-style-type: none"> • Lac Weye 		<ul style="list-style-type: none"> • Mayo Dallah • Lac Léré • Kabia
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"> • Bahr El Gazal • Ouaddai-Biltine Watershed System 	<ul style="list-style-type: none"> • Bahr El Gazal 	<ul style="list-style-type: none"> • Ouara • Assoungaha • Djouf Al-Ahmar • Biltine 	

Expected benefits

Expected benefits of the project are:

Strengthened local capacity for integrated ecosystem management:

- (i) Ability to plan, implement, and monitor Local Development Plans and associated IEM and natural resource management subprojects;
- (ii) Globally replicable lessons in community-based IEM gained through fully participatory processes;
- (iii) Improved and more durable environmental information management systems.

Strengthened central institutional capacity:

- (i) Production of environmental legal texts and their diffusion at the decentralized level;
- (ii) Production of legal texts to transfer natural resources management to decentralized authorities.

Preservation of natural resources and ecosystems:

- (i) Restoration, protection, and conservation of globally-significant ecosystems and habitats and key biodiversity assets therein;
- (ii) Increase in land area under formal or informal ecosystem management schemes;
- (iii) Benefits from global biodiversity use more equitably shared and indigenous knowledge incorporated into conservation efforts.

4. Institutional and implementation arrangements:

Since the GEF project will be fully integrated into the PROADEL, the Ministry of Land Management, Urbanism, and Habitat (MATUH) shall have institutional responsibility for the project. MATUH would therefore be responsible for administrative, financial and accounting management of the project and would in particular ensure (i) consistency with contractual documents (Development Grant Agreement, Project Implementation Manual, Project Administrative, Accounting and Financial Manual, Project Monitoring and Evaluation Manual, Procurement Plan) and (ii) provision of financial management reports and completion of annual audits. The Ministry of Environment and Water will be accountable for technical quality through a CBEM Scientific and Technical Committee established by *Arrêté No 023/PR/PM/MEE/SG/0*. More details on implementation arrangements are detailed in the project Implementation Manual, the Project Administrative, Accounting and Financial Manual and the Project Monitoring and Evaluation Manual.

Intervening structures for the project's orientation, execution and follow-up include:

- **The PROADEL Steering Committee**, which is a technical committee to monitor and follow up all PIDR projects. It (i) examines and approves the balance sheet of the previous period's activities and (ii) adopts the action programs and budgets.
- **The CBEM Scientific and Technical Advisory Committee** will review the technical elements of the project's activities having a national scope, guarantee the coherence and scientific quality of activities, and take part to the monitoring, and evaluation of the project from a technical standpoint.
- **The PROADEL Project Management Unit**, would be responsible for coordinating the implementation of the project.
- **Local project management units** of each of the relevant baseline projects under the PIDR. Three sub-regional local management units for the PROADEL comprise an administrator, a monitoring and evaluation specialist, a capacity-building and communication specialist, an environmental and social specialist, and an accountant. They would be responsible for (i) the implementation of capacity building activities at the local level, (ii) monitoring the management of funds transferred to beneficiaries to cofinance subprojects, (iii) monitoring and evaluation of activities at the local level, and (iv) distributing information to the local stakeholders and the PMU. In the sites covered by the PRODALKA and PRODABO, this support will be ensured by their project coordination units. Follow-up and support of subprojects related to soil fertility, will be handled by the Inter-regional Coordination and Management Units of ASPOP. This collaboration will be done within the framework of a convention whose objectives and terms will be studied by the persons in charge for the various projects and by the various financial backers.

- **Decentralized Project Approval Committees** for each of the relevant baseline projects. Subprefectoral Decision and Approval Committees are organs that have been created under the framework of the PROADEL and would examine and approve subprojects elaborated and proposed by PROADEL eligible beneficiaries in GEF priority zones in PROADEL project area. These committees consist of representatives of: (i) deconcentrated line ministries concerned with submitted subprojects; (ii) an NGO chosen by his or her peers; (iii) local rural organizations; and (iv) community-based organizations. In the GEF intervention zones covered by PRODALKA and PRODABO, this function will be ensured by the appropriate local decision committees of the PRODALKA and PRODABO, as elaborated in the Project Implementation Manual. Subprojects related to soil fertility and restoration will be examined by the local decision selection committees of ASPOP.
- **Local Communities**, with farmers, stockbreeders, fishermen, community associations, etc. at their core. Individuals in rural communities 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. Local communities will submit for approval their proposals for co-financing micro-investments in the GEF priority intervention areas to various existing local decision committees, as described above. During the approval process, requests are reviewed by local project management units to check on conformity with the project's guidelines. Upon approval, they are forwarded to the PMU which transfers funds to beneficiaries to finance the subprojects. The project would subcontract with service providers to support beneficiaries in subprojects implementation.

Program Management and Monitoring

Day-to-day management of project activities would be assured by the PROADEL's Project Management Unit (PMU) in N'Djamena, with members recruited by MATUH and under the direct supervision of the PROADEL National Coordinator. The National Coordinator works in close cooperation with the GEF Specialist and the Financial Management Specialist (FMS). The PMU is 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 project, (vi) reporting results to various stakeholders (administration, donors, civil society, projects, Decision Committees), and (vii) providing guidance and technical assistance to decentralized PROADEL teams in Koumra, Moundou, and N'Djamena and staff in the baseline projects including ASPOP, PRODALKA and PRODABO. Additional staff would be recruited within the PMU for the implementation of GEF activities:

- A GEF Specialist
- An Assistant in Monitoring and Evaluation
- A GEF Accountant
- A Secretary
- Two drivers

A comprehensive Project Implementation Manual, Project Monitoring and Evaluation Manual, and a Project Administrative, Financial and Accounting Manual prepared by the Government of Chad were reviewed by the Bank during appraisal. The Project Implementation Manual defines procedural arrangements for implementing the project and includes guidelines for identifying, approving, implementing, supervising, and evaluating subprojects. The detailed configuration of the PMU, the

profile of the staff, and their job descriptions are also described in the Project Implementation Manual.

Financial Mechanisms and Flow of Funds (see annex 11):

Financing of the the project's expenditures will be based upon the GEF Grant Account opened at the level of the World Bank in Washington. The Special accounts A and B (respectively for the financing of community subprojects on the one hand, and other operational and capital expenditures on the other hand) and the National Counterpart Funds Account will be maintained in N'Djamena. Thus, resources necessary for financing the activities will come from:

- GEF Grant Account opened in Washington, DC for Authorized Withdrawal and the Replenishment of Special Accounts A and B, and for direct payments to suppliers.
- Special Accounts A and B (open in a Commercial Bank considered to be acceptable by The Bank) for all the expenditure in front of on the spot financed in the country by the resources of the FEM and
- National Counterpart Funds Account (open in a Commercial Bank acceptable by The Bank), for expenditures to be financed by the Government.

Financial Management Arrangements

The financial management will be ensured by the PROADEL's FMS in collaboration with the GEF Accountant. Expenditures will be budgeted by the PMU of the PROADEL, including the GEF Specialist and its Accountant. All the payments will be made upon the triple signature of the National Coordinator of the PROADEL, the FMS of the PROADEL and the GEF Specialist. Daily accounting and financial operations and the preparation of Disbursement Requests will be carried out by the GEF Accountant under the supervision of the FMS of the PROADEL. The system of financial management based on a requirement of triple signature will guarantee (i) the technical responsibility of the MEW for technical decisions made by the GEF Specialist in conjunction with the Scientific and Technical Advisory Committee, (ii) the moral and financial responsibility of MATUH to ensure supervision of all the measures of the PROADEL through the Coordinator and the FMS.

1. Capacity Assessment of the PMU

A PMU with a competent and experienced staff, including a coordinator, an administrative and financial management specialist, a principal accountant, a GEF Specialist to be complemented by a GEF accountant, have already been recruited through a competitive process acceptable to the Bank. Adequate provision would be made to train the accounting and financial staff. The PMU includes an experienced procurement specialist. At the field level, there are three LPMUs, comprising in particular an administrator, a monitoring and evaluation specialist and an accountant. The project would benefit from the extension of the financial management system, already acceptable to the Bank, which has been established for the PROADEL. The system would provide the Recipient and the Bank 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. The PMU would be responsible for project administrative and technical coordination and financial management of the project.

2. Accounting and Financial Monitoring Reports

The PMU 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. The computerized accounting and financial management system installed for the PROADEL will be extended to include the GEF activities. This would also include the preparation of guidelines for using the software, in accordance with procedures in the Project Administrative, Accounting and Financial Management Manual to be approved by the Bank. The accounting and financial management staff will be trained accordingly on the operation of the computerized accounting

system. The PMU would maintain its 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 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 FMS of PROADEL with the support of the GEF Accountant would be responsible for preparing the Financial Monitoring Reports, according to procedures laid out in the Project Administrative, Accounting and Financial Management Manual. The National Coordinator of the PROADEL would be responsible for ensuring that the reports are provided to the Bank on a timely basis. 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 quarterly financial monitoring reports 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 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. A separate module of the PROADEL financial management and accounting system will be created to account for the financial and technical data for the activities financed by the GEF. This will make it possible to produce financial management reports and technical reports for the project activities.

Auditing

The audit of the project's activities, including preparation activities under the PDF-B grant, will be carried out by the independent firm already selected by competitive recruitment for the PROADEL. Project records and accounts would be audited in accordance with international audit standards. The audit reports would be submitted to the Bank 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. 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.

D. Project Rationale

1. Project alternatives considered and reasons for rejection:

The following alternative projects have been considered and rejected:

Blended versus stand-alone project. As a stand alone GEF project, the project would have had a much more

limited impact and geographic scope due to resource constraints and higher risks. As a blended operation, the PROADEL 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 rural poverty. The GEF project, in turn, will benefit from a national and cross-sectoral framework of great breadth and depth, as well as decentralized management structures and logistics. It is unlikely that without the structure and resources lent through a blended operation, sufficient capacity would be built to monitor ecological processes at ever larger geographical scales, or that subprojects supported by other donors would be able to generate in the aggregate the same degree of broad, multiple benefits to diverse stakeholders. Since PROADEL and associated baseline 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 ecosystem management and biodiversity conservation. Moreover, the APL approach adopted by the baseline project allows for the Government to readily advance with an incremental scale-up to all departments in a subsequent phase, and to develop a sound, long-term program, based on the concrete lessons from the first phase of interventions.

Top-down 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. As in other countries, projects managed at the central level have been ineffective and failed to adequately respond to local needs. This is particularly the case for environmental protection activities. An alternative approach would have been to design a more traditional “command and control” biodiversity conservation project, aimed at delineating new areas to be protected, adopting the necessary regulations, and formulating conservation management plans to be implemented. However, experience has shown that such an approach has limited chance of succeeding, because it does not provide sufficiently strong incentives to local communities to comply and participate in monitoring and enforcement of conservation schemes. Moreover, an approach would run counter the Government’s position on the desirability of implementing the NEAP and BSAP through community-based and decentralized structures. To the contrary, the project takes into account the need to contextualize interventions in the context of rural poverty reduction. It aims at integrating natural resource management activities into land use planning and agricultural and livestock activities.

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	ASPOP Agricultural Services & Producers Organizations Project Cr 38370, active	S	S
Agriculture	PSAP Agricultural and Pastoral Services, Cr 26850, closed	S	S
Energy	Petroleum sector management capacity building, Cr 33730, active	U	U
Energy	Household Energy Project, Cr 38020, closed	S	S
Other development agencies			

African Development Bank	natural resources management		
Agence Française de Développement	rural hydrology		
European Commission	natural resources management		
German Development Cooperation - GTZ/KfW/DED	natural resource management, decentralization		

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

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:

- If local groups are adequately trained and monitored, they are capable of managing the entire project cycle, from needs assessment through payment of service providers.
- Disbursement efficiency is paramount in acquiring and maintaining local interest and dynamics.
- The GOC cannot protect or manage biodiversity in general, and protected areas in particular, without the endorsement and participation of local communities and the strengthening of local management capacities.
- 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
- 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. However, these approaches have heretofore been very limited or lacking.

Household Energy Project (CR 30820 CD, 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 project 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 (AEDE) 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. Pilot programs show that it is possible to implement systems of collection and marketing of the wood fuel which benefit communities and allow for sustainable regeneration of wood resources. However, it is important to closely follow the environmental impact, so that communities do not have incentives for excessive deforestation. This conclusion was also made by the Decentralization Project and Local Governorship of Ferlo in Senegal. The project entertains a key role for AEDE in

facilitating communities to achieve a sustainable replication of the results acquired in the N'Djamena area to the Lac Weye and Moundou Charcoal Supply Basin zone.

West African Pilot Pastoral Project (Programme Pastoral Pilote Ouest Africain - PPPOA). This project demonstrated the viability in Chad of participatory community-based approaches to improved natural resource management, in pastoral habitats, and the desirability of linking these to other community demands (e.g., social services) under a more holistic approach. A number of important lessons were learned that will be incorporated into the design of the project. Crop/livestock interactions should be harnessed to a greater extent in order to maximize the economic returns to rural subprojects. It is important for project success that the procedures for preparation of local development plans and sustainable community-based natural resource management are extremely simplified. Likewise, the institutional architecture and procedures for obtaining financing should be as transparent, autonomous, non-complex, and expedient as possible. Particularly in the initial phases, technical experts and extension agents should focus their assistance to demonstrate and disseminate the lessons from successful pilot approaches, while the ultimate elaboration of projects should rest in the hands of communities. It is important that real capacity for using analytical tools be built at the outset of the project within communities, and that facilitators and extension agents play a hands-off role. In addition, monitoring and evaluation systems and frameworks need to be designed with a very practical orientation, in order for local stakeholders to compile reliable data which can persuasively demonstrate positive outcomes. Local capacity must be built in monitoring methods, and indicators should include indicators related to rural productivity as well as ecosystem health. Among the most frequently articulated needs from pastoral communities included: access to water, a veterinary pharmacy, a vaccination park, a collection place for milk, and access to credit. In addition, the Chadian National Livestock Breeding Program of 1994 showed that it was possible to arrange pastoral spaces in zones of exploitation controlled below load capacities and that areas under management not only make it possible to ensure good quality pasture, but for increased productivity of livestock, soil fertility regeneration, and biodiversity conservation.

Lessons from the Bank's experience in other countries

The design of the project also incorporates experiences acquired in other countries in the West/Central African region, including:

Niger Natural Resources Management Project. This project demonstrated a solid record of success and proved that communities have substantial capacity for local development in the area of natural resources management. The project 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. Simplified community-based procurement procedures were introduced and implemented after the midterm review, and the new procedures were successfully implemented by all communities in the project, even with the handicap of a sparse network of bank agencies (as in Chad). 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.

Senegal: Sustainable and Participatory Energy Management Project (SPEMP/PROGEDE). This US\$20 million IDA/GEF project is aimed at helping Senegal meet its rapidly growing demand for household fuels without the loss of forest cover, while enhancing and diversifying local incomes and empowering rural women. A sustainable system capable of producing more than 400,000 tons of

fuelwood per year has been established, and deforestation in the Tambacounda and Kolda regions has been reduced by some 30,000 hectares per year through community-based management plans. The incremental annual income in the project zone from the sale of sustainable fuelwood and the promotion of complementary new agricultural and animal husbandry products has reached more than US\$9.5 million. Moreover, an incremental market penetration of 83,000 improved charcoal stoves and of 11,500 kerosene stoves has been achieved.

4. Indications of borrower and recipient commitment and ownership:

- The Government of Chad signed a Rural Development Policy Letter on October 27, 2003, expressing its commitment to some sector-based measures, particularly the allocation of oil revenues to rural development and the financing of subprojects identified by the participative processes planned in the framework of the PIDR.
- Recognizing that its economy is highly dependent on natural resources, the Government of Chad has adopted a number of environmental policies to address ecological threats to its security, to promote more integrated approaches to ecosystem management, and to strengthen environmental protection and the sanctity of protected areas. Building on its core National Environmental Protection Law 13/PR/94, the Government of Chad has adopted a National Environmental Action Plan (NEAP) as well as a National Biodiversity Strategy and Biodiversity Strategic Action Plan (BSAP) in the last few years. The BSAP promotes a community-based biodiversity management framework. The NEAP will ensure that environmental objectives are integrated into all economic development planning. Finally, more specific legislation has been introduced to regulate hunting, fishing, and timber and non-timber forest product extraction. Chad has ratified the UN Framework Convention on Climate Change (1994), the Convention on Biological Diversity (1994), and the Convention to Combat Desertification (1997), and the Ramsar Convention on Wetlands (1990). Chad is also a signatory to the Yaoundé Declaration on Tropical Forests. The Government has created two national parks (Manda and Zakouma), biospheres (Fitri), wildlife reserves (Abou Telfane, Bahr Salamat, Binder-Léré, Fada Archei, Mandelia, Ouadi Rimé-Ouadi Achim, and Siniaka-Minia), and classified forests, and promulgated legislation regulating hunting, extraction of forest products, and fishing. The proportion of Chad's territory under formal protection approaches international norms with about 13.3% of its total area theoretically under formal protection. However, the Government lacks the means to effectively enforce these areas under legal protection.
- A letter of endorsement for the GEF Community Based Ecosystem Management Project was obtained from the GEF Focal Point on 03/02/04.

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

Synergies between Development Objective and Global Environmental Objective

GEF activities closely parallel and complement each of the four components of the PROADEL, as well as some associated aspects of the Agricultural Services and Producer Organizations Project (ASPOP) and the PRODABO and PRODALKA decentralized development programs, all of which are part of the PIDR. In this way, the integration of holistic community-based ecosystem management approaches and methodologies vetted by the GEF into local development planning will improve the design of PROADEL and by extension the other projects of the PIDR, 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 facilitate a more systematic implementation of the NEAP and create synergies with other key national

strategies relating to biodiversity conservation and land management. The project will benefit from a national and cross-sectoral framework, as well as decentralized management structures and logistics. Since baseline activities will contribute to supporting the basic needs of communities, the likelihood of success of GEF activities will be higher, as they will be in a better position to address longer-term issues contributing to the perpetuation of poverty.

Catalytic role of GEF

The GEF is uniquely positioned to support the project's objectives and it is unlikely that these would be achieved in the absence of GEF support. Without incremental GEF finance, integrated ecosystem management is not likely to be emphasized in any coherent way in decentralized development planning, or articulated as a priority in local development plans. As a result, habitats of global importance could suffer from irreversible degradation. 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 investments in sustainable land and natural resource management without incremental GEF funding for capacity building and piloting. The provision of basic services and food security are so important in Chad that, even if there is a shared agreement that biodiversity protection and land management are important to rural communities, only scattered attention would be given to this critical issue without a more coherent framework for interventions. GEF resources will also be used to catalyze support from the donor community in future phases to sustain and broaden project activities. The project will also create synergies with other ongoing GEF-supported 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);
- Participatory Conservation in the Manda National Park, Moyen Chari Region in Southeastern Chad (GEF / UNDP);
- Building Scientific and Technical Capacity for Effective Management and Sustainable Use of Dryland Biodiversity in West African Biosphere Reserves (GEF / UNEP);
- Institutional Strengthening and Resource Mobilization for Mainstreaming Integrated Land and Water Management Approaches into Development Programs in Africa (GEF / IBRD);
- Rural Policy Design, Planning and Monitoring Support Project (PAEPS).

Donor coordination

The Bank plays an important role in donor coordination in Chad, having established a network with major donors and a common approach to rural development under the PIDR. The GEF project will extend the Bank's partnerships with bilateral donors under the PROADEL, which is co-financed by the French Development Agency (AFD), by joining forces with the German Development Cooperation. The latter's efforts to promote natural resource management and community based ecosystem management in two critical areas of the country under the PRODALKA and PRODABO programs are focused on two critical sub-regions of Chad (Mayo-Dallah, Lac Léré and Kabia in the Southwest, and the Biltine-Ouara regions in the Far East of the country). This arrangement will ensure that investments on the ground can proceed more rapidly and that a common vision among donors can begin to be formed regarding the expansion of community based ecosystem management approaches across a wider area of the country. Formal cooperation with the German Development Cooperation will be supplemented by other informal collaborations with ongoing related programs in Chad. Twice a year, the donors will meet and take joint strategic decisions on project performance and to monitor the achievement of global objectives.

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

1. Economic (see Annex 4):

- Cost benefit NPV=US\$ million; ERR = % (see Annex 4)
- Cost effectiveness
- Incremental Cost
- Other (specify)

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

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

Fiscal Impact:

3. Technical:

The assessment of institutional and technical capacities conducted as part of PDF-B activities, generated valuable information on the capacity of the stakeholders in integrated ecosystem management. A comprehensive training plan has been developed and would be implemented rapidly in order to ensure success of the project. The project would emphasize capacity building and training throughout its implementation. In addition, the project will contract international technical assistance to help programming and implementation of integrated ecosystem management activities.

4. Institutional:

4.1 Executing agencies:

Project Steering Committee

At the central level, a single Steering Committee has been established to monitor and guide implementation of PIDR projects, including PROADEL, ASPOP, PRODABO and PRODALKA. The Steering Committee consists of:

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

The Steering Committee will be supported by a CBEM Scientific and Technical Committee, comprising score of members with different sectoral representation, that will be charged with ensuring conformity of the project to GEF guidelines.

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 in particular to political variables. Therefore, implementation arrangements of baseline projects the GEF project would rely on have been 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.

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 and staff have been recruited through a competitive and transparent process and would receive training through the project.

4.3 Procurement issues:

All procurement decisions will be supervised by the procurement specialist in the PROADEL PMU in coordination with the GEF Specialist, under the supervision of the National Coordinator of PROADEL. On the basis of the evaluation of procurement capacity carried out at appraisal, a two-pronged action plan was proposed and accepted: (i) development of an action plan and budget for the activities to be carried out in the first eighteen (18) months of the project; and (ii) preparation of a procurement plan corresponding to this period.

4.4 Financial management issues:

To better manage the project and ensure sound and effective financial management, the financial management system developed for the PROADEL would be extended to cover the GEF activities. This system comprises (i) a Project Administrative, Financial, and Accounting Management Manual to be 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 which is (i) user friendly and adaptable over time, takes into account the progressive geographical extension of the project; (ii) allows use of a transparent accounting and financial management system; (iii) allows capture of the flow of funds; and (iv) has adequate arrangements for cost monitoring for all project expenditures. The project's financial management staff, which would comprise the PROADEL RAF, the Principal accountant and the GEF accountant 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.

Under PROADEL, an Environmental Assessment was completed prior to appraisal, with local stakeholders involved in the preparation. The final environmental assessment included an Environmental and Social Management Framework and a Resettlement Policy Framework and was received by the Bank on November 5, 2002, and have been available in Chad and at the Bank's Infoshop since November 21, 2002. Consultants have met with local associations, local authorities, and NGOs in several *départements* representative of each agroecological zone (sudanien, sahelien-sudanien, and sahellien) to identify and appreciate subprojects that would be requested by communities and funded by the project. The consultants could therefore evaluate related potential environmental impacts. However any subproject could affect the environment and they would be systematically reviewed in advance, and appropriate measures would be taken to fully disclose potentially negative environmental impacts.

For subprojects identified under ASPOP, ASPOP safeguard documents would apply: an Environmental Analysis had been also prepared which included as well a Pest Management Plan, a Resettlement

Policy Framework and a Dam Safety Analysis. All of them have been prepared by consultants on a participatory manner with strong consultations with representatives of NGOs, technical services of ministries, producer organizations, and have been disclosed in November 2002.

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

The Environmental and Social Management Framework for environmental impact assessment is founded on PROADEL's design. Therefore :

- (i) the environmental and social specialist of the PROADEL in the PMU will be responsible for monitoring social and environmental impacts of the GEF project activities;
- (ii) he would be assisted by the environmental and social specialists of the LPMUs;
- (iv) the social and environment assessment capacity of the approval committees (PROADEL, ASPOP, PRODABO and PRODALKA) would be strengthened.

Considerable training would be needed to make the framework operational. This training would be provided by PROADEL and should be planned and executed by the PMU 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

This refers to PROADEL Environmental Assessment.

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 *départements*, *sous préfectures*, and *cantons*. 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 ASPOP EA, consultants visited several areas in November 2001 to discuss the activities with local stakeholders and consultations have then been organized during the June-July 2002 technical mission.

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 social specialist of the PMU would be responsible for following up on environmental indicators. Furthermore a larger natural resources monitoring system would be designed under the project. It would provide surveillance of renewable resources to aid local stakeholders in decisionmaking.

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

decisionmaking 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 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.

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

The 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).

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

- An information workshop was held on July 20, 2004 to introduce GEF and the project to various project coordinators and technicians in Chad;
- A seminar was held on September 9-10, 2004 for technical specialists, NGOs, representatives UNDP and the World Bank, and relevant staff of baseline projects to review the preparation of the project;
- A technical workshop was held in November 2004 to validate the logframe, the intervention strategy, a list of eligible subprojets and the study on soil fertility with the participation of about thirty representatives of key actors implied in project planning;
- An appraisal workshop was held in February/March 2005 with broad participation of government representatives, civil society groups, and technical specialists to validate the final project document and accompanying implementation strategies;
- Stakeholders would name their own representatives to local Decision Committees through a participatory process preceded by an information campaign.
- Specific procedures have been put in place to make sure that women and other marginalized social groups are involved in project preparation and implementation, including the development of a specific training plan and monitoring and evaluation plan that elaborates measures and recommendations for inclusion of marginalized groups

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) help to implement subprojects; 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. The Monitoring and Evaluation system will capture the performance of the project toward the achievement of the social development outcomes included in subprojects.

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)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Natural Habitats (OP 4.04, BP 4.04, GP 4.04)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Forestry (OP 4.36, GP 4.36)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Pest Management (OP 4.09)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Cultural Property (OPN 11.03)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Indigenous Peoples (OD 4.20)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Involuntary Resettlement (OP/BP 4.12)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Safety of Dams (OP 4.37, BP 4.37)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Projects in International Waters (OP 7.50, BP 7.50, GP 7.50)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)*	<input type="radio"/> Yes <input checked="" type="radio"/> No

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

The environmental assessments of PROADEL and ASPOP conducted during preparation have 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. To ensure compliance with the applicable safeguard policies :

- An environmental and social screening, evaluating, and supervising mechanism would be maintained 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.
- Community awareness would be raised 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.

- New methods would be found 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.
- A Dam Safety Analysis has been prepared among the ASPOP safeguard documents. It includes generic dam safety measures and training proposals for the purpose of enabling producers organizations to manage the safety of their small dams. An Integrated Pest Management Plan has been as well prepared under ASPOP to ensure that producers organizations apply appropriate pest management approaches under their subprojects. Both these Dam Safety Analysis and Pest Management Plan will be applied in this project when needed.

F. Sustainability and Risks

1. Sustainability:

The project's long-term vision is a sound enabling environment for community-based ecosystem management using public resources that are managed in a participatory and decentralized manner. While the project will establish transitory structures to this end that rely on donor financing, particular attention would be paid to the institutional and financial sustainability of interventions. The Government has provided clear assurances to guarantee the sustainability of project interventions, and actions and commitments to advance decentralization, co-management of protected areas, and more equitable land tenure and natural resources management structures have already been taken. The Law on Oil Revenue Management envisions a progressive integration of a percentage of oil revenues or Heavily Indebted Poor Country (HIPC) Debt Initiative funds into decentralized public resources management frameworks. In this way, the most typical barrier to sustainability—long-term funding—will be addressed by the project's efforts to “institutionalize” more decentralized funding mechanisms for environmental management activities and to establish a pipeline of community conceived and vetted subprojects.

The strategic approach of the project rests on the assumption that early direct engagement and empowerment of communities is fundamental to creating proper incentives for socially and environmentally sustainable natural resource exploitation and that environmental subprojects must be analyzed in the context of their economic feasibility and contribution to livelihoods. Sustainability of subproject investments is primarily ensured by the participation of beneficiaries in all decisions and by their financial and other in-kind contributions. Beneficiaries would be responsible for defining their priorities, supervising implementation, and managing and maintaining such investments. Furthermore, sustainability of all investments financed under the project is a key criterion for approval. Beneficiaries must have developed a maintenance plan outlining responsibilities, management, and financing arrangements, and availability of necessary human resources.

Additional arguments for the sustainability of project interventions include the following:

- The long-term, phased approach of the PIDR and specific PROADEL activities, which affords flexibility, continuous feedback, and a regular schedule of periodic adjustments in its targets, is a sound

framework in which to guarantee the sustainability of interventions.

- In forging collaboration among stakeholders, including civil society and local research institutions, the project will facilitate a shared vision of roles and responsibilities in IEM and build a durable partnership to sustain the achievements of the program.

1a. Replicability:

Interventions to be advanced under the project 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 will enable a mainstreaming of this new concept.

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. This 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 the PROADEL web site. 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 visible and other communities and farmers will seek to achieve similar benefits. Local training 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 stakeholders, facilitated by an earmarked budget for outreach. Participatory M&E 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	Risk Rating	Risk Mitigation Measure
From Outputs to Objective		
Ineffective decentralization of natural resources management	M	The project recognizes that the promulgation of certain legislation and their enforcement will be necessary to ensure for more effective decentralized management of natural resources. Actions to address this risk are incorporated into the project design.
Local populations are not interested in the realization of community-based ecosystem management activities	M	The project has made provisions for incitative measures such as sensitization campaigns and specific trainings, as well as realistic level of community contributions.
Availability of Counterpart funding from the Government	S	Oil revenues would be earmarked for these environmental activities as environment is one of the priority sectors.
From Components to Outputs		
Beneficiaries do not have enough resources to co-finance subprojects	M	Guidelines for the conditions of local contribution have been set at a reasonable level and are comparable to those of similar projects in Chad. For most of the subprojects, all the

Local decision committees suffer from political interference and cannot operate autonomously	M	contribution can be in kind or labor. Specify rule and conditions in grant agreement, including "social audits," full and transparent disclosure.
Competent service providers and sufficient resources are not readily available.	M	A careful selection of targeted intervention areas has been made, and adequate training can be provided and international invitations to bid launched. A technical committee made up of multi-sector specialists will support the implementation of activities.
Lack of commitment of local communities to uphold regimes and charters for integrated ecosystem management and joint management of protected areas	M	Comprehensive integrated ecosystem management regimes and intra-community charters will be prepared under the project through a highly participatory approach and mechanisms will be established for ongoing stakeholder consultation. Strategies will be designed under these regimes to promote revenue generation and new employment opportunities throughout the project area.
Overall Risk Rating	M	

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

3. Possible Controversial Aspects:

G. Main Grant Conditions

1. Effectiveness Condition

The conditions of effectiveness of the GEF grant will be:

- The Project Implementation Manual, the Project Administrative, Financial and Accounting Manual and the Project Monitoring and Evaluation Manual have been adopted, all in form and substance satisfactory to the Bank ;
- A financial management and accounting system acceptable to the Bank has been installed ;
- The Project Account has been opened and the initial contribution of FCFA 100 million has been deposited in it;
- The PROADEL Implementation Arrêté (*Arrêté* No. 008/MATUH/SG/03 dated October 14, 2003) has been amended to reflect the recruitment of the personnel necessary for the implementation of the GEF Project.

2. Other [classify according to covenant types used in the Legal Agreements.]

H. Readiness for Implementation

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

- 1. b) Not applicable.
- 2. The procurement documents for the first year's activities are complete and ready for the start of project implementation.
- 3. The Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality.
- 4. The following items are lacking and are discussed under loan conditions (Section G):

I. Compliance with Bank Policies

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

Valerie Marie Helene Layrol
Team Leader

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Sector Manager

Ali Khadr
Country Director

Annex 1: Project Design Summary
CHAD: Community-Based Ecosystem Management Project

Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
<p>Sector-related CAS Goal:</p> <p>Enhancing non-oil economic opportunities while reducing sources of vulnerability.</p>	<p>Sector Indicators:</p> <ul style="list-style-type: none"> ● Improved income of targeted rural beneficiaries; ● Increased capacity for environmental management and compliance to related safeguards at national and regional levels; ● Increase of agricultural productivity of land (in the project areas). 	<p>Sector/ country reports:</p> <ul style="list-style-type: none"> ● National statistics ● Updated CAS ● Legislation pertaining to environmental management and decentralization ● PRSP surveys ● Report on the monitoring of rural sector 	<p>(from Goal to Bank Mission)</p> <ul style="list-style-type: none"> ● Political stability, for the development and successful execution of the strategies of the sectors and the continuation of decentralization and local democratization
<p>GEF Operational Program:</p> <p>To achieve multiple and local, national, and global benefits by promoting the widespread adoption of farming and resource exploitation practices that integrate ecological, economic and social goals (OP 12)</p>	<p>Outcome / Impact Indicators:</p> <ul style="list-style-type: none"> ● Improved stability and functioning of critical, globally significant ecosystems targeted by the project; ● Interest of communities and other actors not directly involved in Phase 1 of project to replicate and get involved in the GEF activities. 		

Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
<p>Global Objective:</p> <p>The GEF project's development objective is to restore some of the Recipient's most fragile ecosystems by enabling local communities to better fight desertification, rehabilitate degraded lands and protect biodiversity.</p>	<p>Outcome / Impact Indicators:</p> <ul style="list-style-type: none"> ● Nb hectares protected against deforestation, land degradation, and bush fires ; ● At least 50 villages in the Moundou woodfuel supply basin sustainably manage their wood resources ; ● Level of endangerment of endemic mammals, birds and plant species reduced by at least one category in GEF priority zones (flora, fauna to be determined in baseline diagnostics and surveys, site-specific M&E plans) ; ● Durable environmental monitoring and data management systems for the rural sector ; ● Incremental adoption of soil fertility improvement and other sustainable agricultural techniques (e.g., direct seeding) in 25% of targeted areas. 	<p>Project reports:</p> <p>Participatory monitoring by communities</p> <p>Supervision missions</p> <p>Rural Development Sector Monitoring Unit reports</p> <p>Report of the PRSP / Poverty Monitoring System</p> <p>Fuelwood and charcoal usage statistics and AEDE reports</p> <p>ECOSIT household survey and regular censuses</p> <p>Beneficiary assessment and appraisal of community satisfaction at project closure</p> <p>Environmental studies and biodiversity monitoring surveys</p>	<p>(from Objective to Purpose)</p> <p>Absence of major environmental disaster(s)</p> <p>Adequate political and budgetary support to the decentralization agenda</p> <p>Sufficient number and broad base of communities profit from the project interventions to have a materially significant impact at ecosystem level</p> <p>Targeted population actively cooperates on environmental concerns</p> <p>Key national and local stakeholders are effectively sensitized to the positive links between conservation, natural resource management, and local community development during the project</p>

Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
<p>Output from each Component:</p> <p>1. Financial support for community-based ecosystem management subprojects</p> <p>Anticipated results:</p> <ul style="list-style-type: none"> ● Financing mechanisms for demand-driven community based natural resource management subprojects that can achieve a positive global environmental impact when aggregated are piloted and mainstreamed ● Existence of a ready pipeline of community conceived and vetted subprojects, eligible for funding under future oil revenue-sharing plans <p>2. Capacity building for integrated ecosystem management</p> <p>Anticipated results:</p> <ul style="list-style-type: none"> ● Capacity built within local communities and civil society in IEM principles and planning tools in order to address global environmental threats in the context of local development and NRM challenges. ● Priority training needs of contractors and beneficiaries have been identified and met ● Community associations, producers' organizations and marginalized groups are enabled to actively engage in ecosystem management schemes <p>3. Support for an enabling environment for CBEM</p> <p>Anticipated results:</p>	<p>Output Indicators:</p> <ul style="list-style-type: none"> ● By mid-term review, 45% of approved subprojects (constituting at least 20 subprojects) have been completed; ● By end of project, 70% of approved subprojects (constituting at least 50 subprojects) have been completed. <ul style="list-style-type: none"> ● By midterm review, 50 training sessions or sensitization campaigns to benefit community-based organizations have been implemented at the community level; ● IEM best practice guidelines have been finalized and are disseminated to all targeted communities; ● By end of project, at least 25% of LDPs in targeted zones specifically address integrated ecosystem management issues in the manner set forth in the PIM; ● By end of project, at least three ecosystem management schemes have been conceived. <ul style="list-style-type: none"> ● By midterm review, the draft decree on National Fund for Environment related to Law 14/PR dated 	<p>Project reports:</p> <ul style="list-style-type: none"> ● Supervision missions ● Midterm review and final ICR ● Interim project monitoring and evaluation reports ● Local Development Plans ● Ecosystem Management Plans and Conventions ● Minutes of project approval decision committees ● Field missions ● External audit mission ● Environmental diagnostic, impact and assessment studies ● Project M&E database ● External evaluations (e.g. GEF) <ul style="list-style-type: none"> ● Supervision missions ● Midterm review and final evaluation, ICR ● Project monitoring and evaluation reports ● Communication plan ● Training programs ● Reports of training activities ● Minutes of departmental and local project approval decision committees ● Participatory diagnostics and surveys ● Training modules and tools developed ● Communications strategy ● Report of the PIDR ● Updated IEM Guideline Document <ul style="list-style-type: none"> ● Supervision missions ● Midterm review and final evaluation, ICR ● Project monitoring and 	<p>(from Outputs to Objective)</p> <ul style="list-style-type: none"> ● Local administrations demonstrate good will and capacity toward the local development mechanism ● Good coordination and total synergy with the policies and sector projects ● Strong cooperation of traditional and local authorities ● Communities are interested in ecosystem management activities and are willing to incorporate ecological considerations into productive activities <ul style="list-style-type: none"> ● Committees are constituted in a transparent and democratic way ● Local planning process is effectively supported by the baseline projects ● Absence of major violent conflict over the same natural resources by stakeholders <ul style="list-style-type: none"> ● Government is willing to implement decentralization ● Political will of financial partners to establish and

<ul style="list-style-type: none"> ● Conducive enabling environment for decentralized natural resource management and environmental governance ● Decentralization laws reflect shared vision of community-driven natural resource management ● Skills and enforcement capacity of decentralized line agents, particularly the Ministry of Water and Environment, strengthened ● New partnerships and financing mechanisms piloted for community ecosystem management <p>4. Management and monitoring support</p> <ul style="list-style-type: none"> ● The program is managed effectively and efficiently in conformity with predefined procedures ● Necessary information is available, reliable, and regularly disseminated to the various stakeholders on time ● GIS databases and other management information systems to monitor targeted ecosystems are developed ● A shared tool and participatory methodologies to monitor community ecosystem management and rural natural resource management are available at the national level 	<p>August 17, 1998, and the draft Law concerning management of forests and fauna have been prepared;</p> <ul style="list-style-type: none"> ● By the end of the Project, decree on National Fund for Environment related to Law 14/PR dated August 17, 1998, and the draft Law concerning management of forests and fauna have been enacted or signed, as the case may be; ● By the end of the Project, the implementation ratio of number of training sessions, as planned by the PMU to benefit the MEW reaches 60 %. <ul style="list-style-type: none"> ● By end of project, 80% of the reports to be prepared by PMU under the Project M&E Manual have been issued in a timely manner; ● 80% of contracts signed by the PMU have been executed on time; ● By end of project, a feasibility study of the National Observatory for Natural Resources Monitoring has been performed and approved; ● Well defined indicators relating to land degradation and biodiversity conservation are integrated into rural development monitoring system under the PIDR 	<p>evaluation reports</p> <ul style="list-style-type: none"> ● Reports of training activities ● Minutes of government deliberations ● Texts adopted and/or proposed ● Workshop reports ● National, regional, and local budgets ● Report of the PIDR ● Laws on decentralization inventory ● Official court transcripts concerning resource management cases ● Legal and technical studies <ul style="list-style-type: none"> ● Midterm review and final ICR ● Financial management reports ● Bank supervision reports ● Program web site ● Local Development Plans ● Project submissions and related documentation ● Beneficiary assessments ● Annual reports of the PIDR 	<p>implement a National Fund for the Environment</p> <ul style="list-style-type: none"> ● Sufficient recognition and validation by authorities at local and national level of pilot community-based integrated ecosystem management schemes <ul style="list-style-type: none"> ● Intersectoral and interproject collaboration ● Adequate leadership of Scientific and Technical Advisory Committee and High National Committee on the Environment ● Sufficient political will to implement a National Observatory for Natural Resources Management
<p>Project Components / Sub-components:</p> <p>1. Financial support for community based integrated ecosystem management</p>	<p>Inputs: (budget for each component)</p> <p>US\$ 2.5 million</p>	<p>Project reports:</p> <ul style="list-style-type: none"> ● Supervision reports ● Project status reports ● GEF/Bank disbursement 	<p>(from Components to Outputs)</p> <ul style="list-style-type: none"> ● Capacity building efforts successfully translate IEM needs and related priorities

<p>subprojects</p> <p>2. Capacity building for integrated ecosystem management</p> <p>3. Support for an enabling environment for CBIEM</p> <p>4. Management and monitoring support</p>	<p>US\$ 1.6 million</p> <p>US\$ 0.7 million</p> <p>US\$ 1.2 million</p>	<p>reports</p> <ul style="list-style-type: none"> ● Supervision reports ● Project status reports ● Disbursement reports (quarterly) ● Progress reports (quarterly) <ul style="list-style-type: none"> ● Supervision reports ● Project status reports ● Projects ICR <ul style="list-style-type: none"> ● Project status reports ● Disbursement reports (quarterly) ● Annual audits ● Projects ICR ● Supervision reports 	<p>into majority of local development plans in targeted zones</p> <ul style="list-style-type: none"> ● Human and material resources and communication infrastructures exist ● Elected local committees are respected and competent enough to assist beneficiaries ● Decentralization agenda successfully implemented and Government commitment to components objective remains strong ● Actors and relevant implementing agencies are collaborating to provide timely data ● Adequate and timely flow of counterpart funds
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Annex 2: Detailed Project Description

CHAD: Community-Based Ecosystem Management Project

The following parts describe all components and related implementation arrangements.

By Component:

Project Component 1 - US\$2.50 million

Financial support for community-based ecosystem management subprojects

Objective:

The baseline projects will provide small grants to co-finance priority, demand-driven subprojects that have been proposed by community-based organizations (associations, organizations, and others with legal status). Eligible projects must not be included on the negative list, must include some degree of beneficiary contribution based on a sliding scale depending on sector and sub-region (in cash, labor, or materials), and must meet the eligibility criteria set out in the Project Implementation Manual. The GEF project will complement this financing window by supporting micro-projects implemented by communities that incentivize the realization of incremental global environmental benefits through the aggregation of a variety of investments in ecosystem preservation and natural resource management, including activities that support community participation in biodiversity protection and ecosystem management, based upon demand-driven principles. Eligibility will be restricted to activities that are: (i) proposed in Local Development Plans, (ii) that primarily lie within or material impact the ecosystems or global environmental objectives within the GEF priority intervention zones and fit into the Ecosystem Management Schemes (to be developed under component 2), (iii) represent genuinely “incremental” investments having a medium or long-term economic return and that manifest barriers to their immediate implementation by beneficiaries. The Project Implementation Manual includes specific guidelines for GEF co-financing eligibility, including a broad list of archetypal activities. Some of the activities likely to be eligible include, *inter alia*: the reforestation and rehabilitation of gallery forests; development of grazing corridors; community co-management of protected areas; introduction of agro-forestry techniques; development of local drought management plans and bushfire awareness and control programs; and pilots to demonstrate or disseminate more sustainable, alternative energy technologies and practices, such as more efficient cooking stoves. Special advantage will be given to project proposals that would simultaneously deliver incremental environmental and social benefits in several different areas.

To avoid capture of resources by elites, the project would ensure that every process (subproject identification, selection, and implementation) is participatory and management of resources is transparent. To ensure sustainability of investments, beneficiary contributions would be mandatory, with local maintenance responsibility. Two options are available regarding funds management: (i) direct management by beneficiary groups if they dispose of sufficient capacities and the financial structures exist or (ii) direct payment of enterprises and service providers by the UGP in case the above criteria are not satisfied. Participatory appraisal would be supported by Component 2. Decision and Approval Committees would be constituted to approve Local Development Plans and subprojects of communities. Subprojects would be approved by PROADEL Subprefectoral or Departmental Decision and Approval Committees, ASPOP Departmental Selection Committees, PRODABO Environmental Decision Committee or PRODALKA Environmental Decision Committee, depending on the sites and/or the nature of the subprojects, as set out in the Project Implementation Manual.

Project Component 2 - US\$1.60 million

Capacity building for integrated ecosystem management

Objective

Under component 2 of the PROADEL, capacity building activities across a wide spectrum of sectors will be provided to local communities and community associations, Subprefectoral and Departmental Decision and Approval Committees, and service providers (training institutions, NGOs, microfinance institutions) to strengthen their technical and organizational capacities for participatory approaches, needs assessments, project management, access to credit, and new poverty reduction behaviors. GEF grant funding will support technical assistance, awareness raising, and capacity building support services to local communities to integrate environmental concerns and IEM principles into local development planning. Capacity building activities will proceed in a two-tiered strategy. At one level, collaboration between key stakeholders will be built to pursue IEM priorities at larger spatial scales and ecosystems. Through sensitization programs and participatory diagnosis and monitoring of ecosystems, communities will have input into the design of diagnostic, GIS mapping, and other scientific studies concerning ecosystem rehabilitation and management. Capacity building will also be provided to assist local actors to develop intra-community charters or conventions regarding joint natural resource management, and to identify beneficial micro-projects that could be implemented at both the community and communal level. On another level, support will be extended directly to communities and technical service agencies for training and pilot programs that build capacity and know-how, particularly among riparian communities in priority intervention areas. Such capacity building and technical assistance would focus on the design and implementation of natural resource management strategies within a coordinated IEM framework, including actions to co-manage protected areas and buffer zones, thereby conserving the unique indigenous biodiversity therein.

The component has two subcomponents:

Subcomponent 2.1: Integrated Ecosystem Management Schemes (US\$0.83 M)

The GEF grant will advance community participation in ecosystem management through the elaboration of sustainable, long-term ecosystem management schemes in targeted priority zones. This will include binding charters or conventions between riparian communities that codify their intent to cooperate and co-manage fragile ecosystems in partnership with local government, traditional local authorities, and decentralized agents of the state such as the MEW. For example, facilitation and technical assistance will be extended to communities to help co-manage protected areas and their buffer zones, including the Binder-Léré Wildlife Reserve in the region of Mayo-Kebbi and the Mandalia Wildlife Reserve in the outskirts of Ndjamen. Support in each of the GEF priority intervention zones will include the realization of a participatory diagnostic and complementary technical studies and GIS mapping (undertaken by different service providers such as research universities, NGOs, etc.) to identify the opportunities and constraints to IEM, as well as the key stakeholders impacted and the potential benefits associated with restoration and conservation of natural resources. These activities will incorporate indigenous knowledge and participation of community leaders. Through this exercise, communities will be supported in identifying their natural, social, and human capital to undertake IEM and to develop a strategy to address the primary threats and barriers to the amelioration of ecosystem functioning. These efforts will be supported by a training and communication strategy as well as workshops to promote participation and active involvement of key stakeholders and beneficiaries.

Subcomponent 2.2: Training of actors (US\$0.77 M)

Training activities relate not only to supporting beneficiaries through each of the steps in the realization of community-based IEM schemes at the local level as outlined above, but also to the training of other actors at the national level, such as service providers, NGOs, and public entities. This capacity building encompasses the elaboration of training modules and programs, national workshops, study tours, surveys. Under a “train the trainers” model, an “IEM Guideline Document” will be disseminated as a capacity building tool for consolidating approaches in local development planning. Specific training related to ecosystem management will be elaborated, such that the conceptualization of subprojects (i.e. those aimed at reducing soil erosion, maintaining forest cover, promoting local tourism) can address biodiversity conservation and broader ecosystem challenges, such as watershed management. In rural areas in the outskirts of Moundou, capacity building will emphasize the promotion of more sustainable household energy alternatives. In pastoral areas, capacity-building will focus in particular on sustainable management of land use, based on previous experiences in Chad. In addition to these activities, scientific and technical capacity will be built in biosphere reserve management.

This subcomponent would be executed by NGOs and other service providers. 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. Training would be conducted primarily in local languages and would emphasize a learning-by-doing approach. Additional details on targeted beneficiaries, training topics and modules envisioned, and existing competencies of existing service providers are elaborated in the project Training Plan.

Project Component 3 - US\$ 0.70 million

Support for an enabling environment for community-based ecosystem management

Objective:

The objective of component 3 of the PROADEL is to assist the Government of Chad in the effective implementation of its decentralization policy. GEF incremental activities will complement this effort by creating a better enabling environment and strengthening national capacity for decentralized environmental governance and community based integrated ecosystem management. The vision is to create a framework for sustaining the outcomes of the Project and expanding its reach to the entire territory over time, specifically through the adoption and application of legislation and other mechanisms promoting an equitable and durable transfer of resources and competences to communities for natural resource management.. This component is based on the analysis of the legislations made by several documents of policy (NEAP, UNCCD NAP, the White Paper on the environment) which highlight several gaps which limit the full participation of the communities in the management of their environment. The project will be interested more particularly. It will also be interested to create a context favorable for a durable financing of installations of ecosystems undertaken by the communities. This Component is subdivided in three under-components; Improvement of the legal framework; Support with decentralization; Durable financing. It was agreed with the team of preparation to add an institutional support to the Department of the Environment and Water and to its decentralized

engineering departments.

This component has three subcomponents:

Subcomponent 3.1.: Improvement of the legal and regulatory framework (US\$0.23 M)

This would consist of analytical support to establish a sound legal and regulatory framework for community participation in environmental management and joint management of protected areas. The NEAP, UNCCD NAP, and the Ministry of Environment's White Paper identify several gaps in the existing framework, including a failure of many significant environmental management laws to take into account the decentralization process. Some of the more urgent priorities are to support the application of the Law 16 on forestry, fauna and fisheries, its extension on the taxation of forest resources to the other cities of the country, and the finalization of the decrees of Law 14/98 defining environmental protection principles. The project will also assist in the validation, awareness raising, and support for campaigns to advocate for these reforms by and among communities. Secondly, the project would address land tenure laws through assistance to communities, particularly in areas that affect nomadic pastoralism and workable modalities for joint management of selected protected areas.

Subcomponent 3.2.: Institutional support (US\$0.29 M)

Under the baseline projects, a number of general activities to support the decentralization process will be take place. The GEF project will support transfer of natural resources management responsibilities. Various studies would be carried out on the roles and responsibilities of decentralized authorities with respect to the management of natural resources and protected areas. Support would be extended to better identify capacity needs and fiscal reforms necessary to implement the legal and regulatory reforms advanced in subcomponent 3.1, particularly among the relevant line ministries. As with subcomponent 3.1, advocacy campaigns to effect more decentralized in environmental governance and the validation by communities of selected reform measures would be supported on a demand-driven basis. In addition, under this sub-component, logistical and equipment support, specialized training and workshop, and other assistance of a technical nature will be provided to agents of the Ministry of Environment and Water at the central level but also essentially at the decentralized level, primarily in the GEF priority zones, to improve local skills and monitoring and enforcement powers.

Subcomponent 3.3.: Sustainable Financing (US\$0.18 M)

This subcomponent will thrust at activities designed to promote partnerships between communities and external sources of financing outside of the GEF to sustain ecosystem management schemes. Sources of financing to be targeted include: (i) private sector partnerships for income-generation activities (e.g. ecotourism); (ii) state budget and those of intra-community organizations; (iii) tax revenues from forest products and other natural resources, such as fisheries; (iv) international foundations and NGOs; (v) national funds planned for environmental and natural resource management (vi) decentralized co-operation (vii) carbon finance and payments for environmental services. The project will prioritize the following activities under this envelope:

- Support the Government with the definition and implementation of a National Fund for the Environment, in particular the establishment of synergies with the financing of subprojects that address land management and biodiversity conservation
- The development of a framework for community partnerships that could assist communities to identify long-term co-financing of ecosystem management activities, enhance cooperation with international foundations and NGOs, manage their legal and financial interests vis a vis potential international partners and private companies, and design pilot projects eligible for international investment under emerging environmental market schemes, such as carbon finance (e.g., sequestration of carbon through community reforestation and agroforestry).

Project Component 4 - US\$1.20 million

Management and monitoring support

Objective

The objective of this component is to ensure for the efficient management of the project and the implementation of an effective system of monitoring and evaluation. This component has also seeks to put in place at the nation level systems to monitor community ecosystem management. The project will dispose of a separate but complementary database to the PROADEL and generate its own GIS maps. It is subdivided in three under-components.

Subcomponent 4.1.: Support to project management (US\$1.16 M)

Day-to-day management of project activities would be assured by the PMU of the PROADEL. Additional staff would be recruited by the Ministry of Land Management, Urbanism, and Habitat: a GEF specialist, an assistant in monitoring and evaluation and a GEF accountant. The PMU's responsibilities would be to: (i) coordinate overall implementation of the project, (ii) manage project activities implemented at the national level and assist in coordination of activities in the priority zones, (iii) ensure the availability of funds, (iv) ensure procurement of all goods and services; (v) maintain the books and the accounts of project activities and produce financial reports, (vi) monitor and evaluate implementation of the work program and its impact, (vii) report results to stakeholders (administration, donors, civil society, projects, Decision Committees), and (viii) provide technical assistance to local project implementation units. The project would finance (i) training to strengthen the staff, (ii) equipment and vehicles; (iii) financial and technical audits, and (iv) information campaigns and communications. Additional details are elaborated in the Project Implementation Manual. A financial audit of the project's GEF activities would be conducted by an external 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.

Subcomponent 4.2.: Support to project monitoring and evaluation (US\$0.02 M)

This subcomponent will finance the monitoring and evaluation of the project's impacts as well as the outcomes of its investments in community based ecosystem management projects. Stakeholders at every level would be involved in gathering, processing, analyzing, storing, and disseminating the information required for transparent and efficient decisionmaking, as well as for sound financial and technical monitoring of activities. A unique logframe and target indicators will be developed for each of the GEF priority zones given the diversity of ecosystem and socio-economic challenges and global objectives. This will be validated by local authorities, traditional authorities, and riparian communities. Target indicators could include: increase in water for pasture and wild fauna, increase in hectares under effective protection; number of hectares under active reforestation. Ecosystem quality improvements will be measured by data collected by communities, assisted by service providers, and integrated into decentralized monitoring systems and the rural sector monitoring database. Impacts and results would be assessed through a technical evaluation of the project to be conducted by an independent consulting firm at the end of the project (some evaluation design work will also occur at the beginning of the project). The report would provide guidance on lessons learned, replicability, expansion, and the design of a possible second phase. A Project Monitoring and Evaluation Manual has been developed to guide information collection and assessment. Censuses would be conducted regularly to monitor the impact of the project, and a beneficiary assessment would be completed at the end of the project. Some data would be regularly provided by other monitoring systems, such as the Poverty Monitoring System and the Rural Sector Monitoring System. Details are provided in the Project Monitoring and Evaluation

Manual.

Subcomponent 4.3.: Monitoring of ecosystem management at the national level (US\$0.02 M)

The vision of catalyzing a national scale-up of community based ecosystem management through the GEF project will require efforts to centralize information and to create durable systems for following-up data collection and analysis. The project will: (i) expand the scope and national coverage of environmental management information systems, particularly as they relate to rural natural resource management; (ii) refine the methodologies and tools used for community based monitoring of ecosystem quality trends (including the creation of a Geographic Information System databases; and (iii) proposing a set of quantitative indicators to benchmark improvements with respect to the project's global environmental objectives, (e.g., biodiversity conservation and land management). While Chad disposes of some GIS databases, and other specialized agencies and development projects also have information relevant to natural resource management, this information is not available in one consolidated form or location. One of the objectives of this subcomponent is to develop methodologies and effective systems to integrate parameters on biodiversity conservation and soil degradation into the Rural Development Monitoring Plan, building upon existing environmental and biodiversity data compiled under the NEAP and Regional Environmental Information Management Program (REIMP). Currently the PIDR lacks indicators specific to ecosystem management (e.g., hectares of degraded land and protected areas, number of communities that are implementing forestry management schemes, number of watersheds under active management or rehabilitation, quality and increase in grazing corridors). The GEF project will support a feasibility study for a National Observatory of Natural Resources, which could be charged with the collection, analysis, harmonization, and diffusion of information on the state of Chad's ecosystems and natural resources to both national and information stakeholders. Such an observation system could be used as an early warning tool for climatic and other threats to the natural resource base. The MEE will be entrusted to ensure sustainability of data collection through the High National Committee on the Environment.

Annex 3: Estimated Project Costs
CHAD: Community-Based Ecosystem Management Project

Project Cost By Component	Local US \$million	Foreign US \$million	Total US \$million
Financial support for CBIEM subprojects	2.50	0.00	2.50
Capacity Building for integrated ecosystem management	1.10	0.50	1.60
Support for an enabling environment for CBIEM	0.50	0.20	0.70
Management and monitoring support	0.80	0.40	1.20
Total Baseline Cost	4.90	1.10	6.00
Physical Contingencies	0.00	0.00	0.00
Price Contingencies	0.00	0.00	0.00
Total Project Costs¹	4.90	1.10	6.00
Total Financing Required	4.90	1.10	6.00

¹ Identifiable taxes and duties are 0 (US\$m) and the total project cost, net of taxes, is 93.92 (US\$m). Therefore, the project cost sharing ratio is 48.72% of total project cost net of taxes.

Annex 4 Incremental Cost Analysis

CHAD: Community-Based Ecosystem Management Project

Context

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. The Government 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, regional, and national planning. 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 a community-based integrated ecosystem management approach to address Chad's key environmental threats, particularly loss of biodiversity and land degradation, is recognized, a number of barriers have precluded the ability to translate this strategic vision into action. These barriers include:

- **Limited funding mechanisms.** Until the advent of the PROADEL, it was impossible to implement a participatory, community-based ecosystem management program with almost full national geographical coverage, in part because financing for rural communities to undertake activities whose aggregation could quickly achieve a positive global environmental impact has been scarce. The few decentralized development program precedents to the proposed project that have occurred either were limited in geographical scope, or did not directly address environmental issues.
- **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 managing forests and woodfuels sustainably could be used widely given adequate support for capacity building. Such techniques would also have a positive impact on reducing carbon emissions. The capacity of local communities to co-manage their natural resources and ecosystems, particularly protected areas and buffer zones, is very limited.
- **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. While the Government of Chad supports policies that integrate natural resource management into decentralized structures and plans, the process of decentralization is still in its early stages. Weak decentralized natural resources management capacity in poverty-stricken areas aggravates existing human migration pressures that can be destabilizing and contributes to conflict over land use, particularly between agricultural activities and existing wildlife and protected areas. One of the principal constraints to the protection of Chadian ecosystems includes weak capacity for monitoring and enforcement of the protection of protected areas, including lack of equipment of personnel of the Ministry of Environment and Water. Training on the role of decentralized agents of the Ministry and traditional authorities in the management of ecosystems is minimal, and there are few means to undertake surveys and inventories of indigenous species and other natural assets. 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. Likewise, weaknesses in the legal

framework discourage participatory environmental management schemes.

- **Limited analytical and information basis for long-term monitoring of environmental issues.** Exacerbating this is the limited information basis for long-term monitoring of environmental trends, particularly in the rural space. Only basic data on protected areas is available, while wildlife censuses in many areas are often more than 25 years old. Most decisions on land management are made without sufficient information, as only limited scientific monitoring of desertification is taking place, leading to poor resource rationalization.
- **Need to develop innovative and more holistic approaches in the context of rural poverty reduction.** The transition to the oil era should bring major revenues to the economy. As the underlying basis and outlook for growth in Chad continues to improve, it becomes more critical that conservation and sound natural resource use frameworks be integrated more effectively into local development planning. Adopting these at an early stage of 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 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

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.

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: (i) financial support for community based ecosystem management subprojects, (ii) capacity building for integrated ecosystem management, (iii) support for an enabling environment for community-based ecosystem management, (iv) management and monitoring support.

In line with the strategic priorities of the GEF OP #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. 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. 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.

The GEF project will proceed in tandem with and complement all of the four components of the PROADEL, as well as selected aspects of other baseline projects under the umbrella framework of the Rural Development Support Program (PIDR), and which are being co-financed by IDA, AFD, and the German Cooperation. At the simplest level of analysis, the baseline scenario represents the likely impacts that would result from the timely and steady implementation of the PIDR and the outcomes associated with interventions directly or indirectly intended to enhance natural resource management. The baseline can

therefore be constructed by examining the intended impacts of implementing the PROADEL, ASPOP, PRODALKA and PRODABO programs. The incremental cost for technical assistance, investments, and capacity building associated with the project objectives are identified by comparing the baseline scenario of the projects under the PIDR, including the PROADEL, and the alternative scenarios enabled by the additional GEF resources and co-financing by the Government of Chad and local beneficiaries.

Baseline Scenario

The PIDR is a framework for a number of complementary programs and projects to support the Government's objectives in the agricultural and rural development sectors, namely to increase production in a sustainable way that preserves the environment while reinforcing institutional and human capacities. The commonality between these operations, beyond their focus on rural development, lies in the fact that they place communities in the driving seat and emphasize the need for capacity building among both beneficiaries and decentralized technical agents. The main programs under the PIDR included in the baseline scenario are: the PROADEL, ASPOP, PRODALKA and PRODABO programs. A brief summary of their objectives and likely impacts on the environment in the GEF project's intervention areas follows:

(i) PROADEL

PROADEL is a 12-year APL that will assist the Government of Chad in designing and implementing a decentralized, 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. The project became effective in March 2005 and will progressively cover 19 departments in Chad, building on previous community development pilots. PROADEL will help 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 land tenure, pastoralism and water resource management in order to identify solutions that may be implemented in subsequent phases. PROADEL has four components:

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

- Small social activities such as bridges, classrooms, health clinics, HIV/AIDS prevention and information, personnel training, and wells, etc.
- Large-scale and more expensive collective infrastructure projects that would affect several villages or cantons, such as drilling, rural roads, and water supply systems, etc.
- Natural resources management activities, such as tree nurseries and forestry management, etc.

(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 legal and regulatory decentralization frameworks, and strengthen the capacities of key stakeholders of the decentralization process at national, regional and local levels, and improve the land tenure system; and

(iv) Project Management and M&E of program activities and impact.

(ii) ASPOP

ASPOP is a four year, IDA-financed project with progressive national coverage that started in May 2004. Its objective is to increase rural income and reduce poverty in rural areas, while preserving the natural resource base. ASPOP has three components: (i) promotion of sustainable growth in agricultural production, (ii) capacity building for agricultural services and producer's organizations, and (iii) support to project management. Four sub-components are particularly germane in terms of their potential impact on Chad's ecosystems and the realization of global environmental benefits:

- ***Productive infrastructure.*** Under component 1(a), a number of investments in productive infrastructure will be made in the agricultural sector, based on the demand of local producers organizations. These include: (i) small-scale water management schemes, such as hydro-agricultural retention pools, ponds, hillside water retention structures, pastoral wells, micro-irrigation and drainage, and dams, (ii) soil- and water-resources conservation infrastructures that would allow surface and underground water channeling for agricultural and livestock purposes; (iii) small store systems and rural veterinary facilities. Some of these may have a materially positive impact on local ecosystem quality.
- ***Agricultural development.*** Also under component 1(a), capacity building activities will target improved sustainability of agricultural cultivation practices, primarily in the cotton sector. These include improvement of farming systems and development of conservation farming techniques to preserve soil fertility such as alley cropping, contour ridge terracing, cover crops, and living fences. In addition, demand-driven extension and training activities including crop diversification and the establishment of seed and plant nurseries will be supported.
- ***Strengthening public agents.*** Under component 2(d), the capacities of civil servants at the national and subnational levels in the technical ministries linked to rural development (Ministry of Agriculture, Ministry of Livestock, and Ministry of Environment and Water) will be strengthened. Specifically, the project would provide technical assistance, training, and equipment to the line ministries to enhance capacities in: (i) budgetary and financial management of rural investment programs; (ii) environmental management, particularly in the MEE to monitor potential negative impacts of productive investments on natural resources in the agricultural sector; and (iii) undertaking targeted research on thematic issues, such as constraints to the intensification, diversification and sustainability of agricultural production systems.
- ***Project management and monitoring systems.*** Under component 3, the monitoring and evaluation capacity of projects and programs in the rural sphere will be strengthened by supporting the rural sector's monitoring and evaluation system, (i.e. long-term monitoring by a permanent unit of the developments of impacts of agriculture and relevant rural development activities, and in particular, the effect on poverty of PIDR interventions).

(iii) PRODABO

The Decentralized Rural Development Program of D'Assongha-Biltine-Ouara (PRODABO) is a joint GTZ/KfW/DED financed program and one of the main donor-funded projects in support of the implementation of the Government of Chad's Rural Development Plan (PIDR). PRODABO activities cover the Departments of Ouara, Assoungha, Djouf Al-Ahmar (Ouaddai Region), and Biltine (Wadi Fira Region), areas that have over the last two years been coping with a large influx of refugees from the Darfur region of the Sudan. PRODABO is organized along five components: (i) financial support to rural development investments, particularly rural infrastructure priorities; (ii) natural resource management and ecosystem management of the Ouadis; (iii) support for the decentralization process; (iv) support for local

developing planning; and (v) support for the management of socio-economic infrastructures. In general, the zone has been subjected to a general process of degradation, including very strong erosion and loss of vegetative cover and woody biomass, even in the absence of slopes or large rough surfaces. The second component of the project is strongly focused on rehabilitating the watershed systems, building upon the experience of the previous phase of the program, whose interventions lied mainly in and around the city of Abéché. Specifically, the project targets protection of 65 watersheds, 40,000 hectares of arable lands, and the restoration of 2,200 hectares for farming and tree crops.

(iv) PRODALKA

The Decentralized 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; (ii) Financial support to rural development investments and co-financing of community infrastructures; (iii) Decentralization and local planning support through capacity building of decentralized authorities, outreach campaigns on decentralization and training. (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-based natural resources management and support to communities in participatory local planning in targeted areas. The project supports strengthening the capacity of local stakeholders in sustainable management of natural resources, at the village level and also at the inter-village level for protected areas management. In Lac Lere, the program has helped to establish Local Authorities Decision Committees (ILODs) to ensure stock management of piscicultural species, and monitoring of biodiversity and prevention of bush fires in the Yamba-Berté Forest Reserve.

While each of the PIDR operations will potentially have an indirect impact on the environment, depending on the percentage of investment funds dedicated to environmental subprojects, the way environmental concerns are integrated into the elaboration of local development planning, and the depth of local capacity built in environmental management, it is unlikely that in absense of the Project significant national, local, and global environmetnal benefits would accrue from them. Given Chad's multiple environmental challenges, and the fact that for most of the population, meeting basic needs is a more urgent priority, it is unlikely that a purely demand-driven approach would result in a critical mass of subprojects directly related to natural resources and sustainable land management which can effect measurable environmental benefits. As a result, Chad's unique, globally important ecosystems would continue to undergo serious and potentially irreversible degradation, stemming from the poor management of water resources, the progressive depletion and declining fertility of agricultural soils, the extensification of agricultural production, and the encroachment of human settlements on natural habitats. Moreover, since the baseline projects would not have a material impact on improving the management of protected areas in the country, under the business as usual scenario, most of Chad's critical ecosystems would continue to remain under weak and ineffective protection due to a lack of resources and strong community buy-in. Thus, it is likely that the threatened biodiversity in those critical ecosystems, particularly in the GEF priority zones, would become more critically endangered or even approach extinction. And while the baseline projects will introduce and promote more sustainable farming techniques and assist some communities with small infrastructure complementary to the GEF project's objectives (e.g., pastoral waterpoints), their sustainability would be questionable in the absense of greater investments in community based capacity building and pilots, particularly in improved sustainable land management and agro-pastoral conservation. Finally, while several national strategies and plans (i.e. on rural development, biodiversity, NEAP) promote strong

involvement of communities in natural resource management, and new decentralization laws give communities the opportunity to group themselves around issues such as ecosystem management, and to elaborate intercommunity agreements or charters, insufficient capacity would be built under the baseline programs for a large cross-section of Chadian communities to develop community-based ecosystem management schemes.

GEF alternative description

Integration of GEF incremental activities into the PROADEL will improve the design of all four PROADEL components, while complementing certain components of the other projects under the PIDR, namely ASPOP and German Cooperation-Financed PRODALKA and PRODABO programs. In this way, the project will provide a coherent framework under which a range of interventions and collaborations can be coordinated, advancing the Government's key strategies and realizing local as well as national and global environmental benefits. GEF incremental activities will help restore the functioning of Chad's major ecosystems and facilitate the development of community-based ecosystem management plans in five priority zones across the country; the majority of these comprise significant protected areas in which lie threatened species of global significance. As result of these new management schemes, awareness building programs with riparian communities, and the provision of training and material support for monitoring and enforcement, the effective protection of these protected areas is thus expected to be strengthened . GEF incremental activities will also significantly increase the capacity of local communities, decentralized government agents, and private service providers to incorporate natural resource management and broader IEM considerations into local and sub-regional planning compared to under the baseline scenario. In addition, the project will create a more conducive legal and institutional framework for community-based integrated ecosystem management, building upon baseline efforts to support the elaboration, application, and implementation of decentralization laws. Finally, the project will enhance national and local capacity to monitor ecosystem quality and trends in the rural sphere, particularly those relating to biodiversity and land degradation. The GEF alternative will build durable systems for monitoring, evaluating, and targeting environmental trends and impacts in the rural sector, including support for the feasibility of a National Observatory for Natural Resources Monitoring. Its pilot efforts and evaluations will also foster a much better understanding of the linkages between rural poverty, land degradation, and natural resource management in the Chadian context.

The primary vehicle to achieve these results will be financial and technical support for community-driven, integrated environmental management plans and subprojects that can simultaneously address local development needs and both local and global environmental challenges with an emphasis on activities that promote biodiversity conservation and land management. These objectives would also be achieved through the following other incremental activities:

- support for the adoption and dissemination of new technologies and practices relevant IEM, biodiversity protection, and soil fertility and restoration
- elaboration of management schemes for targeted ecosystems
- training and pilot programs to build capacity and know-how, particularly among riparian communities in priority intervention areas;
- improvements to the legislative framework for decentralized environmental governance and community-based integrated ecosystem management;
- technical and material support to improve the environmental monitoring and enforcement capacity of local actors, including decentralized agents of the Ministry of Environment and Water;
- implementation of a monitoring and evaluation system and integration of land degradation and biodiversity protection indicators into the rural sector monitoring scheme.

The incremental global environmental benefits of the GEF alternative include:

- Restoration, protection, and conservation of globally-significant ecosystems and habitats and key biodiversity assets therein
- Increase in land area under formal or informal ecosystem management schemes
- Insertion in Chadian local development plans of integrated ecosystem management schemas
- Benefits from global biodiversity use more equitably shared and indigenous knowledge incorporated into global environmental conservation efforts

Incremental national and local benefits of the GEF alternative include:

- Promotion of alternative livelihood strategies for the rural poor
- Strengthened local capacity for natural resources and ecosystem management:
- Strengthened central and decentralized institutional capacity:

The GEF project will also 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 include:

- Reversal of Land and Water Degradation Trends in the Lake Chad Basin Ecosystem (UNDP and IBRD). The riparian countries of the Lake Chad Basin (LCB) ecosystem 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, fed by the Batha River, which is the second largest body of water in Chad. The main goals of this component 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. A normally permanent, freshwater Sahelian lake, Lake Fitri 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. 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. Incremental GEF activities under PROADEL will replicate pilot activities under the umbrella of the UNDP/GEF Lake Chad Basin initiative in other rural areas.

- Participatory Conservation in the Manda National Park, Moyen Chari Region in Southeastern Chad (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. 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 the GEF project's planning meetings in order to be able to share experiences and coordinate activities.

- Building Scientific and Technical Capacity for Effective Management and Sustainable Use of Dryland Biodiversity in West African Biosphere Reserves (UNEP). The purpose of this \$6.5 million regional project under development (Benin, Burkina Faso, Cote d'Ivoire, Mali, Niger, Senegal) 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 project's implementation. The project will improve the understanding of interactions between local communities and savanna ecosystems, identify and promote sustainable use of biodiversity in pilot demonstrations, strengthen stakeholder capacity at all levels, and more effectively integrate stakeholders into the management of each pilot biosphere reserve.

- Institutional Strengthening and Resource Mobilization for Mainstreaming Integrated Land and Water Management Approaches into Development Programs in Africa (IBRD). The project under development has the objectives are to (i) develop a credible M&E system to track performance and impacts in the project intervention areas; (ii) compile and disseminate Best Management Practices (including policies) in community-based integrated land and water management; (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); 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.

- Rural Policy Design, Planning and Monitoring Support Project (PAEPS). This project includes an environmental component that will support the implementation of the Chadian National 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.

Root Cause Analysis and Response by GEF Project

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)			
No integrated ecosystem management approach Use of inappropriate farming techniques (slash and burn)	<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 	ASPOP: <ul style="list-style-type: none"> • support for productive investments and dissemination of new agricultural techniques • support for strengthening the capacity of producer organizations and improving the 	<ul style="list-style-type: none"> • Integration of IEM in the revision of land tenure regulation and other legislation pertaining to decentralized responsibility for natural resources management • Pilot activities to disseminate more sustainable agricultural and

agriculture, bushfires, short fallow period):	<ul style="list-style-type: none"> •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>environment for the private sector</p> <ul style="list-style-type: none"> • environmental impact capacity building programs for local governments and communities <p>PROADEL</p> <ul style="list-style-type: none"> •construction of rural infrastructures (roads, wells, etc...) •support to decentralization •revision of land tenure laws <p>PRODABO</p> <ul style="list-style-type: none"> •pilot watershed management approaches and sustainable farming techniques in vicinity of Abeche 	<p>pastoral techniques with longer-term payback periods</p> <ul style="list-style-type: none"> • Capacity building of MEE agents in the field in order to promote new techniques • Integration of larger spatial environmental concerns in Local Development Plans and communal development schemes
Intense rainfall and/or high winds	•Insufficient technical support T	•Technical assistance	•Financing of subprojects such as windbreaks
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 	•The IEM techniques into LDP will bring coherence between local communities in transhumant livestock management
Deforestation (fuel wood mostly)	•No alternative to wood energy proposed T	<p>PROADEL</p> <ul style="list-style-type: none"> • Support for community forestry and rationalization of woodfuel and charcoal sales in Ndjamena and periphery. 	• Support for community forestry and financing of projects proposing energy alternatives in Moundou charcoal supply basin and other GEF priority zones
Uncontrolled water extraction	<ul style="list-style-type: none"> •Land tenure framework S, L •Insufficient 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 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 •Financing of subprojects to combat erosion

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 		<ul style="list-style-type: none"> •Management plans for Protected Areas organized into a network •Application of Law 14 and related texts on hunting, fishing, and forest products

	<ul style="list-style-type: none"> •Difficulties to enforce regulations I, L 		<ul style="list-style-type: none"> •Capacity building of MEE agents in the field •Fire sensitization programs
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>PRODALKA</p> <ul style="list-style-type: none"> • Local development plans integrate natural resource management and biodiversity conservation concerns 	<ul style="list-style-type: none"> •Support implementation of community based IEM schemes in priority zones and strengthening of associated protected areas and buffer zones under critical threat • Improved monitoring and enforcement capacities, including communities and MEE agents in the field • Facilitation of a coordinated, bottom-up IEM approach accompanying affected communities •Local development plans in targeted zones will integrate biodiversity conservation concerns
Conflicts between wildlife and 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 <p>PRODALKA:</p> <ul style="list-style-type: none"> •Installation of ILODs in Lac Lere and Yamba Berte Forest Reserve 	<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...) • Capacity building of affected communities
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 	<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>PROADEL</p> <ul style="list-style-type: none"> • Support for community forestry and rationalization of woodfuel and charcoal sales (including taxation schemes) in city of Ndjamena and periphery. 	<ul style="list-style-type: none"> • Support for community forestry and wood fuel management and financing of subprojects proposing energy alternatives in Moundou charcoal supply basin and other GEF priority zones
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</p> <ul style="list-style-type: none"> • Support for productive investments and producers' organizations <p>PRODABO</p>	<ul style="list-style-type: none"> • Support for alternative rural livelihood strategies, such as agroforestry and ecotourism • Land and resource

		<ul style="list-style-type: none"> • Support for local development and watershed protection in areas under pressure from refugees 	management planning in highly fragile areas under increased pressure from refugees
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Note: issues are sorted in 4 categories: **T**: Technical (includes environmental) / **S**: Socio-Economic / **I**: Institutional / **L**: legal.

Incremental Cost Calculations:

The cost of all relevant baseline activities under the umbrella framework of the PIDR is estimated at US \$86.05 M. The cost of the alternative scenario with the inclusion of the GEF project is \$93.92 M. A detailed breakdown of these costs by component is provided in Table 1 below in order to arrive at the incremental costs. This table also describes the supplemental local, national, and global environmental benefits that would accrue from the alternative scenario as compared to the domestic benefits that would accrue to the beneficiaries if only the baseline scenario were realized.

The incremental cost reflects the difference between the cost of the alternative and the baseline project costs. The total incremental costs for the Project are therefore estimated at US \$7.87 Million, of which the GEF contribution is \$ 6.00 M. GEF support will be allocated by the project components as follows: \$2.5 M is for the financial support to community-based integrated ecosystem management subprojects; \$1.6 M is for capacity building for integrated ecosystem management; \$0.7 M is for support for an enabling environment for community-based integrated ecosystem management, and \$1.2 M is for project management and monitoring support. Thus, the contribution of the GEF represents about 6.5% of the total costs of the alternative scenario.

Table 1: Detailed Incremental Cost Matrix and Comparison of Baseline and GEF Alternative

Component	Incremental Cost*	Baseline Scenario (PROADEL + Associated Aspects of PIDR)	Alternative Scenario with GEF Activities	Incremental Domestic Benefit (including local and national environmental benefits)
1. Financial support for community based integrated ecosystem management subprojects	Incremental Cost: \$2.7 M of which \$2.5 M is GEF Grant; \$0.2 M is Beneficiaries co-financing Baseline Cost: \$33.51 M PROADEL (IDA) - \$10.12 M PROADEL (Beneficiaries) - \$1.6 M ASPOP (IDA) - \$8.99 M ASPOP (Beneficiaries) - \$1.8 M PRODALKA - \$ 6.0 M PRODABO - \$ 5.0 M Alternative Cost: \$36.21 M	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 - PROADEL Component I - ASPOP Component I - PRODALKA Components 1, 2, and 4 - PRODABO Components 1, 2	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	Additional poverty reduction gains through accelerated restoration and/or augmentation of latent natural resources productivity (e.g., soil fertility, fishery stocks, forest services) Pipeline of community conceived and vetted environmental subprojects primed for sustainable decentralized development funding under future oil revenue-sharing plans 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) Forest rehabilitation and increased area under active protection

<p>2. Capacity building for integrated ecosystem management</p>	<p>Incremental Cost: \$ 1.86 M of which \$1.6 M is GEF Grant; \$0.26 M is Government of Chad co-financing</p> <p>Baseline Cost: \$ 28.71 M</p> <p>PROADEL (IDA) - \$4.58 M PROADEL (AFD) - \$ 5.45 M PROADEL (GoC): \$ 8.1 M ASPOP (IDA) - \$2.88 M ASPOP (GoC) - \$0.7 M PRODALKA - \$ 3.5 M PRODABO - \$ 3.5 M</p> <p>Alternative Cost: \$30.57 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> <p>- PROADEL Component II - ASPOP Component II(a)(c) - PRODABO - PRODALKA</p>	<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 significant numbers of local communities in Chad achieved</p> <p>Integration of IEM issues and principles in the majority, rather than minority, of local development plans in GEF priority zones</p> <p>Significant improvement in the capacity of communities to design, plan and implement 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> <p>Lower propensity of riparian communities to encroach upon protected areas and sensitive habitats</p>
<p>3. Support for an enabling environment for community-based IEM</p>	<p>Incremental Cost: \$ 1.52 M of which \$ 0.7 M is GEF Grant; \$0.82 M is Government of Chad co-financing</p> <p>Baseline Cost: \$ 8.19 M</p> <p>PROADEL (IDA) - \$3.4 M PROADEL (GoC) - \$1.67 M ASPOP (IDA) - \$2.62 M ASPOP (GoC) - \$0.50 M</p> <p>Alternative Cost: \$ 9.71 M</p>	<p>Strong institutional/legal framework for decentralized rural development, with minimal capacity of local authorities to support natural resources management (mainly focused on more sustainable agricultural cultivation)</p> <p>- PROADEL Component III - ASPOP Component II(d)</p>	<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 and biodiversity conservation issues greatly strengthened</p>	<p>Improved 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>
<p>4. Management and monitoring support.</p>	<p>Incremental Cost: \$ 1.79 M of which \$ 1.2 M is GEF Grant; and \$0.59 M is Government of Chad co-financing</p> <p>Baseline Cost: \$ 15.64 M</p> <p>PROADEL (IDA) - \$4.9 M</p>	<p>A general public awareness-raising campaign and a broad-based, participatory rural development monitoring system, which would also include additional data on natural resources</p> <p>- PROADEL Component IV - ASPOP Component III</p>	<p>Development of expanded and more coherent environmental management information systems, 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</p>

	PROADEL (GoC) - \$3.41 M ASPOP (IDA) - \$2.27 M ASPOP (GoC) - \$1.06 M PRODALKA - \$ 2.0 M PRODABO - \$ 2.0 M Alternative Cost: \$ 17.43 M			linkages between rural poverty, land degradation, and natural resource management in the Chadian context Feasibility study for a National Natural Resources Observatory conducted
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Annex 5: Financial Summary
CHAD: Community-Based Ecosystem Management 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	0.8	1.5	2.3	2.5	0.7	0.0	0.0
Recurrent Costs	0.1	0.2	0.1	0.1	0.1	0.0	0.0
Total Project Costs	0.9	1.7	2.4	2.6	0.8	0.0	0.0
Total Financing	0.9	1.7	2.4	2.6	0.8	0.0	0.0
Financing							
IBRD/IDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Government	0.4	0.5	0.6	0.6	0.1	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-financiersGEF	0.5	1.2	1.7	1.9	0.7	0.0	0.0
Beneficiaries	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Total Project Financing	0.9	1.7	2.4	2.6	0.8	0.0	0.0

Main assumptions:

Annex 6: Procurement and Disbursement Arrangements

CHAD: Community-Based Ecosystem Management Project

Procurement

GENERAL

Country Procurement Assessment Report (CPAR) for Chad was carried out in 1993, showing that procurement procedures in Chad do not conflict with Bank Guidelines. No special exceptions, permits, or licenses need to be specified in the Financing documents for International Competitive Bidding (ICB), since Chad's Public Procurement Code (Decree 859/PR/SGG/90) allows International Development Association (IDA) procedures to take precedence over any contrary provisions in local regulations. A new CPAR was carried out in May, 2000. It focused on the Government's capacity to manage public resources and on the impact of the recent fiscal reform on procurement. Based on the work prepared by a fiscal expert, the Government has adopted in July 2000 new Instructions to Bidders (Guide aux Soumissionnaires) which clarifies the fiscal issue in a satisfactory way.

Guidelines

Goods and works financed by the GEF Grant shall be procured in accordance with Bank's Guidelines under IBRD Loans and IDA Credits dated May 2004 (The Procurement Guidelines) and Bank Standard Bidding Documents (SBD), and Standard Evaluation Report will be used for ICB. National Competitive Bidding (NCB) advertised locally would be carried out in accordance with Chad's procurement laws and regulations, acceptable to the Bank provided that they assure economy, efficiency, transparency, and broad consistency with key objectives of the Bank Guidelines. In the absence of national standard bidding documents, the Bank's SBD with appropriate modifications in relation to provisions relating to "advertising and notification", "currencies of bid and payment", "settlement of disputes", and deletion of the domestic preference provision, etc will be used for NCB. It should ensure that: (i) methods used in evaluation of bids and the award of contracts are made known to all bidders and not be applied arbitrarily; (ii) any bidder is given adequate response time (four weeks) for preparation and submission of bids; (iii) bid evaluation and bidder qualification are clearly specified in bidding documents; (iv) no preference margin is granted to domestic manufacturers; (v) eligible firms are not precluded from participation; (vi) award will be made to the lowest evaluated bidder in accordance with pre-determined and transparent methods; (vii) bid evaluation reports will clearly state the reasons to reject any non-responsive bid; (viii) prior to issuing the first call for bids, draft standard bidding documents prepared as annexes to the Procedures Manual would be submitted to the Bank for review.

Consultant services contracts financed by IDA grant will be procured in accordance with Bank's Guidelines for the Selection and Employment of Consultants by World Bank Borrowers dated May 2004 (The Consultant Guidelines). The Standard Request for Proposal, as developed by the Bank, will be used for appointment of Consultants. Simplified contracts will be used for short-term assignments, that is those not exceeding six months, carried out by firms or individual consultants.

Procurement activities carried out for small works, goods and services for community-based micro-projects financed by the matching grant would be carried out in accordance with paragraph 3.15 of the Guidelines (Community Participation in Procurement) and with the Bank's Guidelines for Simplified Procurement and Disbursement for Community-Based Investments (February 1998) and the Project Implementation Manual (PIM). These would be described in a specific chapter of the PIM.

Regarding GEF financed activities, procurement activities would be carried out as well in accordance with the World Bank's "*Guidelines: Procurement Under IBRD Loans and IDA Credits*" dated May 2004; and "*Guidelines: Selection and Employment of Consultants by World Bank Borrowers*" dated May 2004, and the provisions stipulated in the Legal Agreement. The general description of various items to be acquired under the different expenditure categories of the project are described below. For each contract to be financed by the GEF grant, the different procurement methods or consultant selection methods, the estimated costs, prior review requirements, and time frame would be agreed upon between the Borrower and the Bank in the Procurement Plan. The Procurement Plan will be updated annually, or as required to reflect the actual project implementation needs and improvements in institutional capacity.

Advertising

A General Procurement Notice (GPN) will be prepared and published in the United Nations Development Business following Board Approval, to advertise for major consulting assignments and any ICB. Publication of a GPN in the national press or official gazette will be carried out for NCB. The GPN shall be prepared before negotiations and published after board approval. It shall include all contracts under ICB and all large consulting contracts (i.e estimated to cost \$100,000 or more). The GPN will be updated on a yearly basis and will show all outstanding International Competitive Bidding (ICB) for works and goods contracts and all international consulting services. In addition, a specific procurement notice (SPN) is required for all goods and works to be procured under ICB and Expression Of Interest (EOI) for all consulting services costing US\$ 100,000 equivalent or more.

Procurement Capacity Assessment

The procurement capacity assessment of the PROADEL was carried out slightly before its appraisal mission. It was found that for the first months of project preparation procurement activities were carried out by the project preparation team which had some experience in procurement management from their experience in other projects such as the FACIL. However, there was not a person entirely in charge of procurement responsibilities. Therefore, the some recommendations were made in the action plan to solve this problem and the possible risks linked to it. Those recommendations which are already being implemented included: (i) the hiring of a Procurement Specialist at the PMU, (ii) the preparation of a procurement plan for the first 18 months of project implementation and a regular annual updating of such plan to reduce the risk of the extension of project duration, (iii) the establishment of a procurement planning and contract management system integrated in the computerized Financial management system to be installed at the central project coordination unit (PMU) and regional units (LPMUs) in order to ensure the follow-up of contracts funds disbursement and aggregate amounts, (iv) providing procurement training workshops at the Regional procurement centers in the region (that is Dakar, Senegal); (v) providing technical assistance through short-term consultants as necessary, (vi) annual technical and financial audits specific to procurement and (vii) a clear development of procurement rules and methods in the Project Implementation Manual (PIM). Since the procurement activities to be financed by the GEF will be carried out by the Procurement Specialist of the PROADEL, therefore there will be no problem at all they will undertaken according to the Bank rules and Guidelines as for the PROADEL.

Procurement Implementation Arrangements

As in the case of IDA Grant implementation, the bulk of procurement for vehicles, equipment, consulting services, studies and training to be financed over the GEF Grant would be managed by the PMU of the PROADEL through the Procurement Specialist it is already staffed with. He will be in charge of the

preparation of all the bidding documents (ICB, NCB and local shopping), the requests for proposals, their submission to The Bank for no objection before their publication. The Procurement Specialist in collaboration with the other senior members of the PMU, with the GEF Specialist included, will make the evaluation of the bids and the proposals and seek the no objection of The Bank before making any award for contracts not governed by the National Tender Board (Commission Nationale des Marchés Publics). For contracts governed by the National Tender Board, the current legislation will apply, provided that it is not in contradiction with the GEF Grant Agreement. The PMU would use consultants as necessary to carry out specific tasks in procurement. At the local level, each of the three LPMUs of the PROADEL staffed with a Procurement Specialist will give the required support to the communities in the case of Community-Based Procurement. They will be mainly in charge of the training of the communities in Community-Based Procurement. They will assist them in the preparation of bidding documents and evaluation of bids when necessary. But this intervention is expected to be very few since the Project Implementation Manual (PIM) will develop a section entirely dedicated to Community-Based Procurement with all the necessary elements. The recruitment to all the positions in the PMU for the GEF activities should be acceptable to The Bank prior to project implementation and during the life of the project.

Documents related to procurement below the prior review thresholds will be maintained by the Recipient for ex-post review by auditors and by The Bank supervision missions. The PMU would be required to prepare a computer-based system to monitor that the aggregate amounts agreed upon would not be exceeded during the life of project implementation.

Procurement Methods

Civil Works

No major works would be financed under the GEF grant. The remaining works consist of small works to be carried out through community-based micro-projects. Given the size, amount and demand-driven nature of community-based ecosystem management subprojects, these contracts would be governed when applicable by the Guidelines for Simplified Procurement and Disbursement for Community-Based Investments (February 1998) and the Project Implementation Manual (PIM). As part of grants for community-based micro-projects, small works will mostly be works relating to the protection of ecosystems such as small dikes, stone barriers, small bridges, small dams, etc. These small works are estimated to cost US\$ 50,000 or less per contract. They may be procured under lump-sum, fixed-price contracts awarded on the basis of quotations obtained from three qualified domestic contractors invited in writing to bid. The invitation shall include a detailed description of the works, including basic specifications, the required completion date, a basic form of agreement acceptable to IDA, and relevant drawings where applicable. A standard bidding document spelling out all the requirements under this procurement method will be furnished in the Project Implementation Manual (PIM). The awards will be made to the contractors who offer the lowest price quotation for the required work, provided they demonstrate they have the experience and resources to complete the contract successfully. Works estimated to cost more than the equivalent of US\$ 50,000 would be procured through National Competitive Bidding in accordance with procedures described in the PIM and acceptable to IDA.

Goods

Goods. For goods to be financed under the GEF Grant, procurement of computers equipment, office equipment, materials and furniture, locally available at economical price and costing less than US\$250,000 per contract will follow NCB procedures acceptable to IDA. Procurement of vehicles, motorcycles and

equipment costing US\$250,000 or more per contract would be carried through ICB. Goods that cannot be grouped into bid packages of US\$50,000 or more may be procured through national shopping according to procedures acceptable to IDA, or through the UNDP Inter-Agency Procurement Services Office (IAPSO). The Recipient would award the contract, on the basis of written solicitation issued to at least three qualified suppliers, following evaluation of bids received in writing from such qualified suppliers. The award would be made to the supplier with the lowest price quotation for the required goods, provided he still has the experience and resources to execute the contract successfully.

IDA Reviews. Contracts financed by IDA above the threshold value of US\$ 250,000 equivalent for Goods and the first three contracts for Goods, awarded under National Competitive Bidding, will be subject to IDA's prior review procedures in accordance to Appendix 1 of the Guidelines.

Community-Based Procurement. The project will finance community-based ecosystem management subprojects which in total is estimated at \$2.7 million equivalent of which GEF \$ 2.5 million. The subprojects will comprise things such as small dikes, stone barriers, small bridges, small dams, etc These subprojects are estimated to cost US\$50,000 or less per contract. Funding for these activities will be in the form of grants. Communities will be required to contribute on agreed percentage of the total budget in labor, kind or in cash (see Project Implementation Manual for details).

Financing will depend on applications received from communities against a negative list of activities. It is not possible to determine the exact mix of goods, small works, and services to be procured under these activities due to their demand-driven nature. Therefore, the types of activities to be financed and their procurement details will depend on the needs identified by the communities. Procurement of items for the implementation of subprojects would be carried out in accordance with simplified procurement procedures referred to the Project Implementation Manual. The manual will contain a special chapter describing the procedures and tools in accordance with those found in the Bank's *Guidelines for Simplified Procurement and Disbursement for Community-Based Investments* (February 1998).

The PMU and the LPMUs will be responsible for ensuring compliance with these guidelines, and ex-post reviews of random subprojects will be conducted periodically by the Bank and independent technical audits.

Procurement of non-consulting services. Services that are not of an intellectual and advisory nature, such as logistics for workshop and training, reproduction of document and printing will be procured through price quotation in accordance with the provisions of paragraphs 3.1 and 3.5 of the Procurement Guidelines.

Consultants Services, Audits and Studies

The total cost of consulting service financed by the GEF is estimated at **US\$1.4 million**. It would mainly consist of: (i) specialized studies, supervision, project implementation and monitoring, Management Information System, financial management support, (ii) specialized advisory services, technical assistance, legal services pertaining to the development and the updating of the policy and institutional and regulatory framework ; (iii) advisory services, participatory assessment and technical support to local communities toward integrated ecosystem management plans ; (iv) training through skills gap analysis, skills development and training staff of central, decentralized institutions and member of community based organization; and (v) and extension of the computerized information management system.

Consultants would be hired in accordance with Bank's Guidelines for the Selection and Employment of

Consultants by World Bank Borrowers dated May 2004 (The Consultant Guidelines).

Quality-and-Cost-based Selection (QCBS): all consulting service contracts costing US\$100,000 equivalent or more for firms would be awarded through Quality and Cost Based Selection (QCBS) method. To ensure that priority is given to the identification of suitable and qualified national consultants, short-lists for contracts estimated at or less than US\$50,000 equivalent may be comprised entirely of national consultants (in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines), provided that a sufficient number of qualified individual or firms (at least three) are available. However, if foreign firms have expressed interest, they would not be excluded from consideration. The Project Implementation Unit would ensure widely publicized expression of interest to get candidacy from consultants. Based on agreed upon criteria, the Project Implementation Unit will maintain and update a list of consultants which will be used to establish short-lists.

Regarding services to be financed under the GEF grant, all contracts for firms estimated to cost the equivalent of US\$ 100,000 or more would be procured using QCBS method. As spelled out by the new Consultant Guidelines, the short-list shall include six consulting firms, the weight factors to be used for the technical proposal shall be 80 percent and 20 percent for the financial proposal.

Least Cost Selection (LCS) would also apply. For financial and technical audits, estimated to cost less than US\$100,000, the selection would be made on the basis of Least Cost Selection (LCS).

Selection Based on consultants Qualifications (CQ): Consultants for small studies, engineering designs and supervision, monitoring and evaluation, and short term assignments, costing less than US\$100,000, would be selected through the Selection Based on consultants Qualifications method.

Individual Consultants: Consultant for services meeting the requirements of section V of the consultant guidelines, may be selected under the provisions for the *Selection of Individual Consultants*, i.e. through the comparison of the curriculum vitae of at least 3 qualified individuals, and in accordance with the provisions of paragraphs 5.2 through 5.3 of the Consultant Guidelines. Some individual consulting services may, with IDA's prior agreement, be selected under single-source basis in accordance with the provisions of paragraph 5.4 of the Consultant Guidelines. Government officials and civil servant may be hired under consulting contract provided their recruitment meets the requirement of the provisions 1.11 (d) of the Consultant Guidelines.

Single Source Selection may exceptionally with IDA's prior agreement be used for (i) training, (ii) advisory services related to activities of the technical support agencies, (iii) consulting assignment provided by NGOs to assist community based associations, in accordance with the provisions of paragraph 3.9-3.13 of the Consultant Guidelines.

Trainings, Workshops, Seminars and Conferences. The total cost of GEF financing for these activities is estimated at US\$0.9 million. Training, workshops, seminars and conferences attendance and study tours will be carried out on the basis of approved annual programs that will identify the general framework of training and similar activities for the year, including the nature of training/study tours/workshops, the number of participants, and cost estimates.

IDA Reviews. Bank Staff will review the selection process for the hiring of consultants proposed by the Recipient in accordance with Appendix 1 of the Guidelines for Consultants. All consulting contracts costing US\$100,000 equivalent or more for firms and all contracts for audits regardless their estimated cost

and all individual consulting contract estimated to cost the equivalent of US\$50,000 or more would be subject to IDA prior review. All other contracts would be subject to post review in accordance with paragraph 4 Appendix I of the Guidelines. Any amendments to existing contracts raising their values to levels equivalent or above the prior review thresholds are subject to IDA review.

All terms of reference of consultants would be subject to IDA prior review. Other procurement subject to IDA review would include: annual training plans for local and overseas training and workshops, including terms of reference and estimated budgets. All out of country training will be subject to IDA approval.

Modification or waiver of the scope and conditions of contracts. Before agreeing to any material extension, or any modification or waiver of the conditions of contracts that would increase aggregate cost by more than 15% of the original price, the Recipient should specify the reasons thereof and seek IDA's prior no-objection for the proposed modification.

Operational Costs: Office rental and utilities would be procured using administrative procedures acceptable to IDA.

Project Implementation Manual (PIM).

A PIM was already produced for the parent's project. It is being revised to take into account the specific aspects linked to GEF activities. It defines the project's internal organization, its implementation procedures and includes: (i) the procedures for calling for bids, selecting consultants, and awarding contracts; (ii) the procedures and sample of contracts for community-based procurement; (iii) the internal organization for supervision and control, including operational guidelines defining the role of the executing agency and reporting requirements and (iv) the disbursement procedures. The Implementation Manual has been examined during negotiations. It will be revised accordingly and adopted by the Government, in form and substance acceptable to the Bank, before effectiveness.

During negotiations, the Government will submit to IDA for review: (a) a draft procurement plan for the first 18 months of the project ; (b) the Project Implementation Manual; (c) the standard bidding documents to be used for NCB procedures for Goods and works; and (d) a training program for the PMU and the LPMUs. The Government will also give assurance that the PMU will : (a) use the Implementation Manual; (b) use the Bank's Standard Bidding Documents for ICB, the Standard Request for Proposals for the selection of consultants, and the Standard Bid Evaluation Reports; (c) apply the procurement procedures and arrangements outlined above; (d) update the procurement plan on a regular basis during annual reviews with IDA and other donors, to compare target times and actual completion, and transmit it to IDA, during implementation, with all procurement-related documents; and (e) carry out, during annual reviews, an assessment of the effectiveness of bidding procedures and performance, as they relate to the program's procurement experience, and propose for IDA and other donors' consideration any modification to the current procedures to the extent that would accelerate procurement, while still maintaining compliance with the Bank's Procurement Guidelines and adequate control over contract awards and payments.

The Government will also give assurance at negotiations that it will take the necessary measure to ensure that procurement phases do not exceed the following target time periods:

<i>Procurement Phases</i>	<i>Maximum number of weeks</i>
Preparation of bidding documents	4 (6 for large contracts)

Preparation of bids by bidders	4 (6-10 for ICB)
Bid evaluation	2 (4 for large contracts)
Signature of Contracts	2
Payments	3

Procurement methods (Table A)

Table A: Project Costs by Procurement Arrangements
(US\$ million equivalent)

This table includes figures for both PROADEL and CBEM plus Government Counterpart funds.

Expenditure Category	ICB	Procurement NCB	Method¹ Other²	N.B.F.	Total Cost
1. Works	0.00 (0.00)	0.68 (0.50)	0.00 (0.00)	0.00 (0.00)	0.68 (0.50)
2. Goods	1.52 (1.44)	2.00 (1.00)	0.07 (0.06)	0.00 (0.00)	2.96 (2.50)
3. Services, Audits and Studies	0.00 (0.00)	0.00 (0.00)	16.06 (6.60)	7.16 (0.00)	23.22 (6.60)
4. Training	0.00 (0.00)	0.00 (0.00)	1.60 (0.68)	0.65 (0.00)	2.25 (0.68)
5. Matching Grants for micro-projects	0.00 (0.00)	0.00 (0.00)	13.78 (10.12)	2.67 (0.00)	16.45 (10.12)
6. Operating Costs	0.00 (0.00)	0.00 (0.00)	2.20 (1.25)	2.44 (0.00)	4.64 (1.25)
7. PPF	0.00 (0.00)	0.00 (0.00)	1.50 (1.20)	0.00 (0.00)	1.50 (1.20)
Total	1.52 (1.44)	2.05 (1.50)	35.21 (20.16)	12.92 (0.00)	51.70 (23.00)

^{1/}	Figures in parenthesis are the amounts to be financed by the Bank Grant. All costs include contingencies.
^{2/}	Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, matching grants for subprojects and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

Prior review thresholds (Table B)

Table B: Thresholds for Procurement Methods and Prior Review ¹

Expenditure Category	Contract Value Threshold (US\$ thousands)	Procurement Method	Contracts Subject to Prior Review (US\$ millions)
1. Works Works for subprojects	More than \$50,000	NCB	Post Review
	Small works for subprojects \$50,000 or less	Community-Based Procurement	Post Review
2. Goods	\$250,000 or more	ICB	Prior review (amount: US\$xxx million)
	Below \$250,000	NCB	Post Review (except first 3 contracts), amount: US\$xxx million
	Less than \$50,000	Shopping	Post Review
3. Services Consulting firms	\$100,000 or more	QCBS	Prior Review (>=100,000), amount: US\$xxx million Post Review (<100,000)
	Less than \$100,000	CQ	Post Review (TORs prior review)
4. Financial and Technical Audits	Less than \$100,000	LCS	Prior Review
5. Individual Consultants	\$50,000 or more or sole source	3 CVs	Prior Review (amount: US\$xxx million)
	Less than \$50,000		Post Review

Total value of contracts subject to prior review: US\$xxx million

Overall Procurement Risk Assessment

Average

Frequency of procurement supervision missions proposed: One every 6 months (includes special

procurement supervision for post-review/audits)

¹Thresholds generally differ by country and project. Consult OD 11.04 "Review of Procurement Documentation" and contact the Regional Procurement Adviser for guidance.

Disbursement

Allocation of grant proceeds (Table C)

The computerized financial management system in place for the management of the Local Development Program Support Project, assessed acceptable to the Bank, will be extended and used for the GEF operations.

1) Arrangements regarding GEF Grant:

(a) Statement of Expenditures: Disbursements for all expenditures should be against full documentation except for items of expenditures under contracts of less than: (a) US\$ 250,000 for goods; (b) US\$ 100,000 for consulting firms, (c) US\$ 50,000 for individual consultants as well as (e) all training and operating costs, which will be claimed on the basis of Statement of Expenditures (SOEs). All supporting documentation for SOEs will be retained at the PMU and will be readily accessible for review by periodic Bank supervision missions and external auditors;

In the case of Financial Support for the Community-Based Integrated Ecosystem Management subprojects, there will be pre-financing of expenditures, as communities are unlikely to start contracting without the assurance of funds. All disbursements against expenditures under the Investment Fund for Community-Based Integrated Ecosystem Management will be subject to *ex post* financial and physical audits, on a sample basis, to be carried out by the external auditors of the project.

(b) **Accounts and Disbursement Procedures**: The following Bank accounts will be maintained:

- Two GEF Special Accounts (A and B) denominated in CFAF ;
- Project Account also denominated in CFAF. Counterpart funds from the Government of Chad will be deposited into this account.

These accounts will be maintained in a Commercial Bank acceptable to IDA. GEF funds will be disbursed to finance activities based on traditional disbursement procedures (transaction-based disbursements) i.e, direct payments, reimbursements, and the use of the special accounts. The project will be eligible to use report-based disbursements after providing Financial Monitoring Reports (FMRs) satisfactory to Bank and maintaining a satisfactory project rating. FMRs that are required under FMR-based disbursements will be prepared by Project Management Unit. They will be used to assess progress towards meeting the requirements of FMR-based methods of disbursement. At the time of conversion, the project will prepare a reconciliation of project expenditures, disbursements received, and Special Account movements up to the proposed date of the conversion. Other details for the conversion will be worked out closer to the time of conversion between the project team and Bank.

The two GEF Special Accounts (SA) denominated in CFAF will be opened in a commercial bank based in N'Djamena, on terms and conditions acceptable to The Bank. The first Special Account (SA-A) will be used exclusively to finance all the subprojects in form of Grants, the second Special Account (SA-B), will be used to finance items and activities such as goods and vehicles, consultant services and audits, training, seminars and workshops and project operating costs. The authorized allocation for SA-A will be CFAF 250 million and will cover about four months of eligible expenditures. The authorized allocation for SA-B will be CFAF 250 million and will also cover about four months of eligible expenditures. Upon Grant effectiveness, The Bank will deposit the amount of CFAF 250 million in SA-A, representing the total allocation for that account, and CFAF 125 million in SA-B, representing approximately 50 per cent of the authorized allocation of this Special Account. The remaining balance will be made available when the aggregate disbursements under categories 1, 2, 3 and 5 will exceed USD 1.5 million. The Special Accounts will be used for all payments in an amount below 20% of the initial deposit to the Special Account.

Replenishment applications will be submitted monthly. Further deposits by the Bank into Special Accounts will be made against withdrawal applications supported by appropriate documents.

Under the report-based disbursements, the advance to the special account will be based on a forecast of expenditures for a period not exceeding 6 months. Replenishments will be made quarterly on the basis of FMRs showing expenditures made during the previous quarter, together with a forecast of expenditures for the upcoming 6 month period and reconciled bank statements.

Project account. The Borrower will open a Project Account (counterpart funds account) in a Commercial bank, in accordance with terms and conditions acceptable to the Bank, in order to receive the compensation fund necessary to cover the part of the Borrower with respect to the total cost of the Project and under the different categories whenever necessary. Before the effectiveness of the Project the Government will deposit an initial contribution of FCFA 100 million in the Project Account and within six months of Effectiveness Date, deposit into the Project Account an additional contribution of FCFA 100 million and keep it afloat in time up to the amount of the initial deposit (FCFA 200 million), or whenever the balance of the account is lower than FCFA 100 million. The Government will make ensure that amounts deposited in the Project Account are used exclusively for the expenditures relating to goods, services and works as part of the different components of the Project.

2- Flow of funds.

Resources needed for financing of program activities will flow from (i) the GEF Grant Account for Direct Payments to be made by the Bank to suppliers, (ii) the GEF Special Accounts A and B maintained in commercial banks in N'Djamena and acceptable to the Bank and (iii) the Project Account for the counterpart funds. The Financial Management Specialist (FMS) of the PROADEL and the GEF Accountant will be in charge of the financial management of the project.

The Coordinator of the PROADEL, the GEF Specialist, and the FMS of the PROADEL will countersign all the checks for the payments to be made under the Special Accounts A, B and the Project account. In case of absence of the Coordinator of PROADEL and/or the FMS, the Monitoring and Evaluation Specialist and the Principal Accountant (the Accountant of the PMU), together with the GEF Specialist will countersign all the checks for payments to be made on these accounts. In case of absence of the GEF Specialist, the Ministry of Environment and Water will designate somebody to countersign all the checks. In all case, all the three signatures are required.

Under the supervision of the project FMS, the GEF Accountant will prepare all the supporting documents for the replenishment of the Special Accounts to be submitted to the Bank through the Ministry of Planning. The Project Account will receive counterpart funds in compliance with the terms of the GEF Grant Agreement.

Flow of funds scheme (see Annex 11 of PAD)

Table C: Allocation of Development Financing Proceeds

Expenditures Category	Grant Amount in US\$ million	Financing Percentage

Vehicles and Equipments	300,000	100% of foreign expenditures 82% of local expenditures
Consultant Services, Audits and Studies	1,400,000	82%
Trainings, Seminars & Workshops	900,000	100%
Grants for Sub-Projects	2,500,000	100% of amount disbursed
Operating Costs	600,000	78%
Unallocated	300,000	
Total IDA Grant	6.00	

FINANCIAL MANAGEMENT ARRANGEMENTS

Accounting System, Accounting Policies and Procedures

- (i) The computerized financial management system in place for the management of the Local Development Program Support Project, assessed acceptable to the Bank, will be extended and used for the GEF operations;
- (ii) The accounting activities for GEF operations will be under the responsibility of the FMS of the PROADEL who will be helped by a GEF Accountant to be recruited specifically to handle the accounting activities of the GEF funds;
- (iii) A specific GEF Specialist has been appointed on terms of reference acceptable to the Bank;
- (iv) The production of a Project Administrative, Financial and Accounting Manual for GEF funds.

The system to be put in place.

The following devices will be put in place:

- A Steering Committee (*Comité d'Orientation et de Pilotage, COP*) composed of different ministries involved in the project implementation;
- A Project Management Unit (PMU) responsible for the day to day operations of the project, composed in particular by the PROADEL National Coordinator, the GEF Specialist, the PROADEL FMS and the GEF Accountant ;
- Capacity building activities in financial management to carry out to the benefit of Communities (Community-Based Organizations and Producer Organizations) by NGOs or Private Sector Agencies;
- A Project Administrative, Financial and Accounting Manual for the PMU and the LPMUs;
- A simplified financial management procedures manual for Community-Based Organizations (CBOs) and other local institutions ;
- The opening of the two GEF special accounts in a commercial bank in N'djamena to be managed by the Coordinator of the PROADEL, the FMS of the PROADEL and the GEF Specialist;
- The opening of the GEF project account in a Commercial Bank in N'djamena to be managed as above.

4- Risk Assessment

Country Risks

Refer to the annex 6: PROADEL PAD

Project Risks

Refer to the annex 6: PROADEL PAD

5- Books of Registry

In addition to the computerized accounting system installed, and the books needed to maintain an accurate and complete record of transactions, the GEF accountant will maintain a set of additional books of registry, for GEF operation.

6- Budgeting

The project annual budget will have to be approved by the Committee. Counterpart funds will have been inscribed in the Government annual budget and therefore, budgeting for project counterpart funds will follow the Government budget cycle.

7- Financial Reporting

Separate financial statements will be prepared for the GEF activities. They will comprise: (i) a statement of source and application of Funds for the project during the current financial year and cumulative since the start of the project; and (ii) a balance sheet. These two financial statements will be prepared annually. In addition, the project management unit will submit quarterly Financial Management Reports (FMRs) including financial reports, physical progress reports and procurement/contracts reports, within 45 days of the end of the reporting period.

8- Audit Arrangements

Financial Audit. The financial statements of the GEF activities will be audited for each fiscal year by PROADEL auditor in accordance with standards on auditing. Audit reports of reasonable scope and detail will be submitted to IDA within six months of the end of the audited period. The auditor will provide an opinion on: (i) the project financial statements (statement of Source and Application of Funds and Balance Sheet); (ii) the statement of expenditures (SOE); and (iii) the special account.

Technical Audit. Contracts with beneficiaries, whose templates are appended to the PIM, refer to micro-project technical audits. They are ordered and managed systematically or randomly by the PMU or the LPMUs. For this purpose, the Project can hire firms.

9- Staffing and Training

The Coordinator of the PROADEL, the PROADEL FMS and the GEF Specialist will be responsible for the management of the GEF Grant. The FMS of PROADEL will oversee all accounting and financial management duties and will be assisted by a GEF Accountant..

10- Training Plan

The Financial Management staff will attend workshops and training sessions on the new financial management computerized system before project effectiveness. The FMS, the GEF Accountant, the Procurement Specialist and the GEF Specialist will all be trained in procedures relating to the use of GEF funds (that is Special Accounts, SOEs, Procurement, FMR, etc.) and in Financial Management including internal controls, information systems and computer applications.

11- Monitoring and Supervision

Project monitoring will take the following forms:

□ Monthly and quarterly and half-yearly monitoring reports;

□ Annual external audit of the Project.

Supervision will be carried out by the Project Financial Management Specialist (FMS) at least twice a year but also before effectiveness and all along the implementation period. Half- yearly reports and also annual audits and Management letters from the external auditors will be reviewed by the FMS. Close supervision will also be performed by the field-based FMS, to ensure that the PMU financial management system is operating adequately.

12- Financial Management Action Plan

Task	Responsibility	Completion date
1. Financial, Administrative and Accounting Manual. <ul style="list-style-type: none"> • Preparation of TOR • Selection of consultant • Preparation of the draft manual • Review and validation of manual • Finalization and submission to IDA. 	PROADEL/GCE PROADEL/GCE Consultant PROADEL/GCE & Comité Technique PROADEL/GCE and Comité Technique	Done Done Done Before Effectiveness Before Effectiveness
2. Implementation Manual. <ul style="list-style-type: none"> • Preparation of TOR • Selection of consultant • Preparation of the draft manual • Review and validation of manual • Finalization and submission to IDA. 	PROADEL/GCE PROADEL/GCE Consultant PROADEL/GCE & Comité Technique PROADEL/GCE and Comité Technique	Done Done Done Before Effectiveness Before Effectiveness
Opening and make initial deposit in the Project Account.	PROADEL/GCE	Before Effectiveness

Annex 7: Project Processing Schedule
CHAD: Community-Based Ecosystem Management Project

Project Schedule	Planned	Actual
Time taken to prepare the project (months)		
First Bank mission (identification)		
Appraisal mission departure		02/28/2005
Negotiations	05/02/2005	05/09/2005
Planned Date of Effectiveness	09/30/2005	

Prepared by:

The project has been prepared by a multi-disciplinary team with representatives from the Government as well as from the civil society. It was supervised by Mrs Mahadie Outhman Issa, from the Ministry of Environment and Water.

Preparation assistance:

PDFb funds for US\$250,000.

Bank staff who worked on the project included:

Name	Speciality
François Rantrua	SFRSI, Senior Corporate Strategy Officer
Noël Chabeuf	AFTS3, Livestock and Pastoralism
Valerie Layrol	AFTS3, Rural Development Officer, Task Team Leader
Soulemane Fofana	AFTS3, Operations Analyst
Ousmane Seck	AFTS3, Senior Agricultural Specialist
Glenn Hodes	AFTS4, Environmental Specialist
Nathalie Munzberg	LEGAF, Counsel
Emile Finateu	AFTFM, Sr. Financial Management Specialist
Hugues Agossou	AFTFM, Sr. Financial Management Specialist
Wolfgang Chadab	LOAG2, Finance Officer
Chloe Milner	AFMTD, Rural Development Specialist
Korotimi Sylvie Traore	AFTS3, Language Program Assistant
Pierre Morin	AFTPC, Sr. Procurement Specialist
Henri Aka	AFTPC, Procurement Specialist
Charles Donang	AFTPC, Procurement Specialist
Enos Esikuri	ENV, Technical Specialist
Thomas Walton	AFTSD, Lead regional Coordinator

Annex 8: Documents in the Project File*
CHAD: Community-Based Ecosystem Management Project

A. Project Implementation Plan

- Manuel d'exécution volet GCE (avril 2005) ;
- Manuel de suivi et évaluation (avril 2005) ;
- Manuel de Procédures Administratives, Financières et Comptables (mai 2005) .

B. Bank Staff Assessments

- « Aide-mémoire de la mission d'identification du PIDR » (March 2001) ;
- « Aide-mémoire de la mission d'évaluation du PROADEL » (December 2002) ;
- Decision meeting minutes (February 2005) ;
- « Aide-mémoire de la mission d'évaluation du volet GCE du PROADEL » (March 2005).

C. Other

- « Etude d'impact socio-environnementale du PROADEL » (November 2002) ;
- « Etude d'impact socio-environnementale du PSAOP » (November 2002) ;
- « Protection des barrages du PSAOP » (November 2002) ;
- « Plan de gestion des pesticides du PSAOP » (November 2002) ;
- Various technical documents on PRODABO and PRODALKA.

*Including electronic files

Annex 9: Statement of Loans and Credits
CHAD: Community-Based Ecosystem Management Project
23-Nov-2004

Project ID	FY	Purpose	Original Amount in US\$ Millions		Cancel.	Undisb.	Difference between expected and actual disbursements ^a	
			IBRD	IDA			Orig	Frm Rev'd
P066998	2005	TD-Local Dev Prog Sup APL (FY05)	0.00	0.00	0.00	24.07	0.00	0.00
P074266	2004	TD-Agr Services & POs SIL (FY04)	0.00	20.00	0.00	19.97	-1.39	0.00
P077240	2003	TD CRITICAL ELEC & WATER Services	0.00	54.80	0.00	37.51	24.22	0.00
P000527	2003	Education Sector Reform	0.00	19.13	0.00	45.05	7.83	4.22
P072226	2002	2nd Pop. & AIDS	0.00	24.56	0.00	15.77	3.54	-1.49
P035672	2001	TD Nat. Transp. Program Support Project	0.00	67.00	0.00	44.11	37.13	0.00
P062840	2000	TD-Petroleum Economy Mgmt (FY00)	0.00	17.50	0.00	1.55	0.93	0.00
P044305	2000	TD/CM PIPELINE	39.50	0.00	0.00	3.05	-1.78	0.00
P048202	2000	TD-Petroleum Sec Cap Bldg Prj (FY00)	0.00	23.70	0.00	0.95	7.41	0.00
P055122	2000	Health Sector Support	0.00	41.51	0.00	15.88	12.66	-1.89
Total:			39.50	268.20	0.00	207.89	90.55	0.85

CHAD
STATEMENT OF IFC's
Held and Disbursed Portfolio
Mar - 2004
In Millions US Dollars

FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
2002	Finadev Tchad	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00
2003	Financial Tchad	1.28	0.00	0.00	0.00	1.28	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:		15.18	0.19	0.00	13.90	15.18	0.00	0.00	13.90

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic
2002	Finadev Tchad	0.28	0.00	0.00	0.00
Total Pending Commitment:		0.28	0.00	0.00	0.00

Annex 10: Country at a Glance

CHAD: Community-Based Ecosystem Management Project

POVERTY and SOCIAL	Chad	Sub-Saharan Africa	Low-income		
2003					
Population, mid-year (millions)	8.6	703	2,310		
GNI per capita (Atlas method, US\$)	240	490	450		
GNI (Atlas method, US\$ billions)	2.1	347	1,038		
Average annual growth, 1997-03					
Population (%)	3.0	2.3	1.9		
Labor force (%)	3.1	2.4	2.3		
Most recent estimate (latest year available, 1997-03)					
Poverty (% of population below national poverty line)	..	..	..
Urban population (% of total population)	25	36	30		
Life expectancy at birth (years)	48	46	58		
Infant mortality (per 1,000 live births)	117	103	82		
Child malnutrition (% of children under 5)	28	..	44		
Access to an improved water source (% of population)	27	58	75		
Illiteracy (% of population age 15+)	54	35	39		
Gross primary enrollment (% of school-age population)	73	87	92		
Male	90	94	99		
Female	57	80	85		
KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1983	1993	2002	2003	
GDP (US\$ billions)	0.83	1.5	2.0	2.6	
Gross domestic investment/GDP	2.7	9.8	61.9	53.1	
Exports of goods and services/GDP	16.4	13.3	12.2	20.6	
Gross domestic savings/GDP	-4.4	-6.2	9.8	21.0	
Gross national savings/GDP	-3.5	-5.2	10.4	14.1	
Current account balance/GDP	-9.1	-15.0	-51.5	-39.0	
Interest payments/GDP	0.0	0.5	0.4	0.4	
Total debt/GDP	26.4	52.7	63.8	56.9	
Total debt service/exports	1.0	8.5	10.2	8.5	
Present value of debt/GDP	30.4	..	
Present value of debt/exports	244.1	..	
	1983-93	1993-03	2002	2003	2003-07
(average annual growth)					
GDP	3.8	4.3	10.5	9.7	11.0
GDP per capita	1.1	1.1	7.3	6.6	17.8

Development diamond*

Life expectancy

GNI per capita

Gross primary enrollment

Access to improved water source

— Chad — Low-income group

Economic ratios*

Trade

Domestic savings

Investment

Indebtedness

— Chad — Low-income group

STRUCTURE of the ECONOMY	1983	1993	2002	2003
<i>(% of GDP)</i>				
Agriculture	39.2	32.5	38.7	45.6
Industry	13.3	14.1	15.4	13.5
Manufacturing	11.1	11.2	13.5	11.5
Services	47.6	53.5	45.8	40.9
Private consumption	98.3	96.2	82.6	71.1
General government consumption	6.1	10.0	7.6	7.8
Imports of goods and services	23.5	29.3	64.2	52.6
	1983-93	1993-03	2002	2003
(average annual growth)				
Agriculture	3.8	4.9	9.5	31.0
Industry	2.7	6.9	1.3	-3.7
Manufacturing	..	..	..	..
Services	3.9	3.4	13.0	0.4
Private consumption	1.9	4.0	13.6	5.0
General government consumption	5.8	1.6	9.7	3.0
Gross domestic investment	9.7	26.5	56.7	-16.6
Imports of goods and services	2.7	15.6	51.2	-12.3

Growth of investment and GDP (%)

300

200

100

0

-100

98 99 00 01 02 03

— GDI — GDP

Growth of exports and imports (%)

150

100

50

0

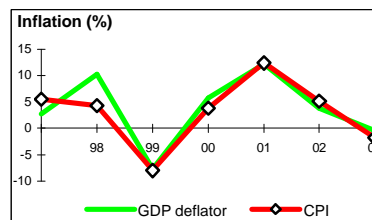
-50

98 99 00 01 02 03

— Exports — Imports

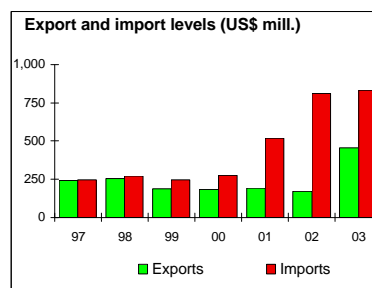
PRICES and GOVERNMENT FINANCE

	1983	1993	2002	2003
Domestic prices				
<i>(% change)</i>				
Consumer prices	..	-7.0	5.2	-1.8
Implicit GDP deflator	0.0	-1.3	3.9	-0.5
Government finance				
<i>(% of GDP, includes current grants)</i>				
Current revenue	2.7	7.9	7.8	8.0
Current budget balance	..	-4.6	-2.0	-1.6
Overall surplus/deficit	..	-12.3	-5.4	-5.8



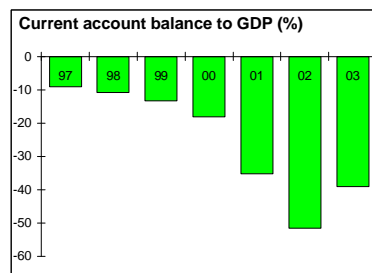
TRADE

	1983	1993	2002	2003
<i>(US\$ millions)</i>				
Total exports (fob)	..	152	172	455
Cotton	..	57	48	71
Cattle	..	44	75	107
Manufactures	..	0	..	..
Total imports (cif)	..	423	812	830
Food	..	6	..	..
Fuel and energy	..	4	27	36
Capital goods	..	125	..	..
Export price index (1995=100)	..	115	64	105
Import price index (1995=100)	..	134	63	74
Terms of trade (1995=100)	..	86	101	143



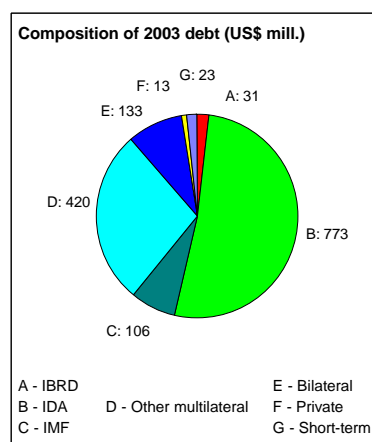
BALANCE of PAYMENTS

	1983	1993	2002	2003
<i>(US\$ millions)</i>				
Exports of goods and services	102	195	245	543
Imports of goods and services	177	429	1,295	1,388
Resource balance	-74	-234	-1,050	-845
Net income	1	-12	-30	-272
Net current transfers	-3	26	43	89
Current account balance	-76	-219	-1,038	-1,029
Financing items (net)	94	187	1,104	981
Changes in net reserves	-17	32	-67	48
Memo:				
Reserves including gold (US\$ millions)	..	..	213	165
Conversion rate (DEC, local/US\$)	381.1	283.2	696.0	581.0

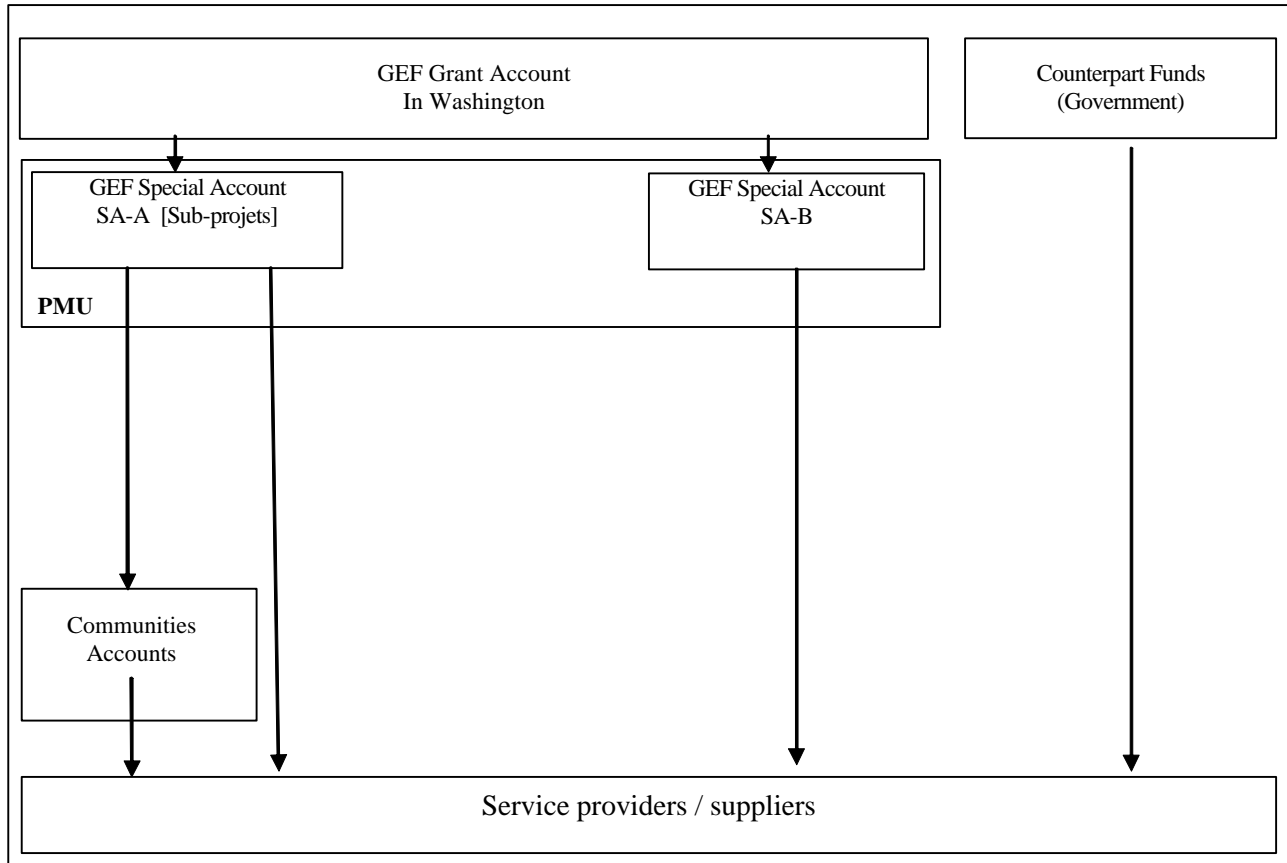


EXTERNAL DEBT and RESOURCE FLOWS

	1983	1993	2002	2003
<i>(US\$ millions)</i>				
Total debt outstanding and disbursed	219	772	1,285	1,499
IBRD	0	0	9	31
IDA	36	284	623	773
Total debt service	1	17	26	46
IBRD	0	0	0	0
IDA	0	2	5	7
Composition of net resource flows				
Official grants	71	106	95	..
Official creditors	12	53	87	111
Private creditors	2	-1	-1	0
Foreign direct investment	0	15	901	0
Portfolio equity	0	0	0	0
World Bank program				
Commitments	0	56	55	79
Disbursements	0	25	73	116
Principal repayments	0	0	2	2
Net flows	0	24	71	114
Interest payments	0	2	4	5
Net transfers	0	22	67	109



**Additional GEF Annex 11: [Flow of Funds]
CHAD: Community-Based Ecosystem Management Project**



Additional GEF Annex 12: Review by Expert from STAP Roster

CHAD: Community-Based Ecosystem Management Project

Dr. Ciro Gardi
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Key issues

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.

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.

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.

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.

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

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

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 GHG emissions.

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.

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.

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.

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.

Response to STAP Review

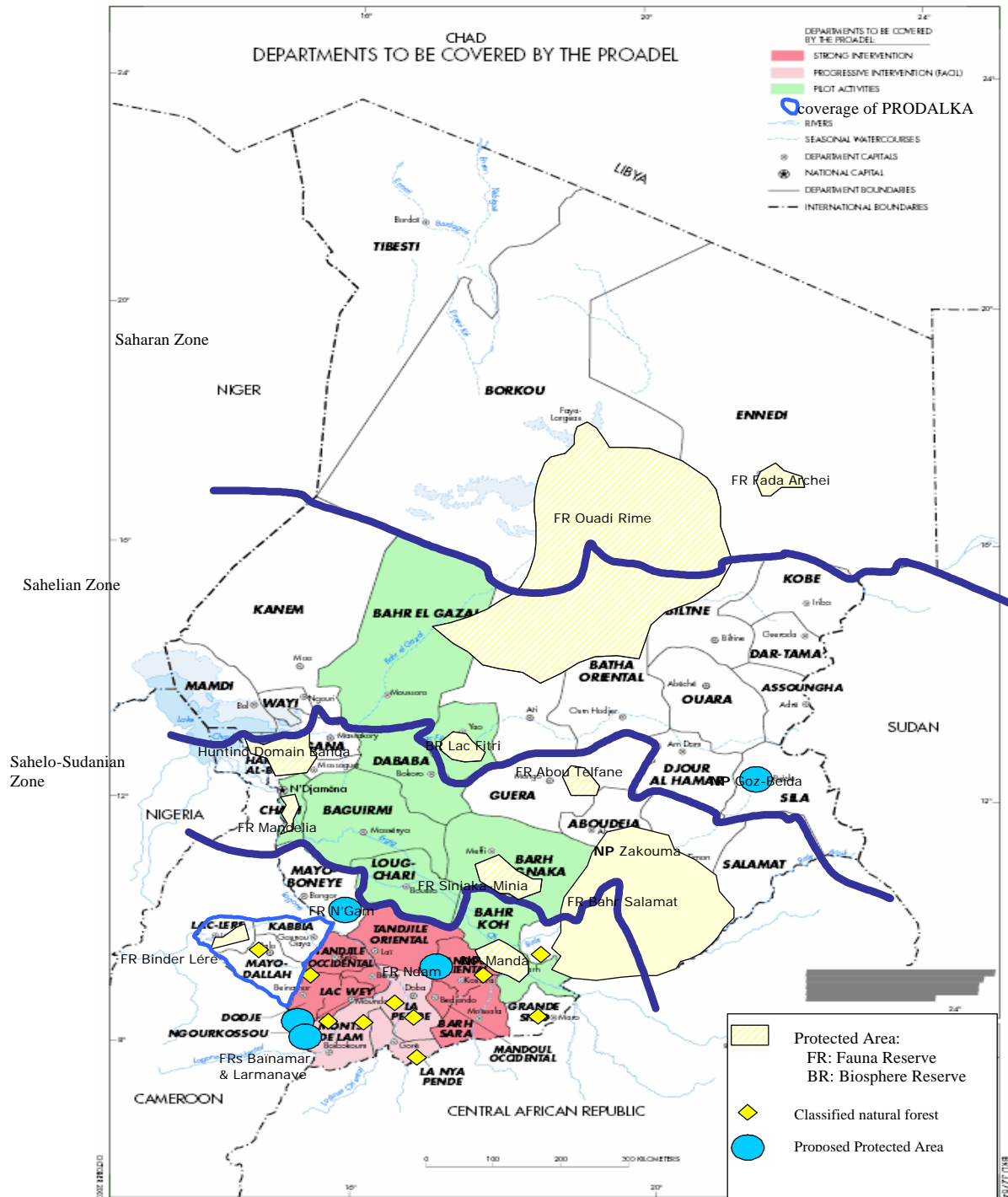
Reviewer Comments	Response
<p>The project is very well conceived and has a high potential to improve environmental management all over the country. Particularly interesting is the possibility to scale up the interventions from local to basin or broader scale.</p>	<p><i>Replication, dissemination, and scale-up of specific techniques and interventions that successfully ameliorate local land and water management as well as promote effective biodiversity conservation at the ecosystem level is an explicit goal of the project. This will be emphasized in three priority areas.</i></p>
<p>Few details on the scientific and technical aspects of the environmental measures are provided. Selection criteria of the proposed activities in ecosystem preservation, reforestation, fight against desertification, soil conservation and sustainable agriculture are not articulated. For instance, is there any option for organic agriculture? Will be a shift from cotton based agriculture towards a multi-crop agriculture? What will be the methodology adopted for reforestation?</p>	<p><i>More detailed environmental studies will be undertaken on ecosystems in the identified priority zones and studies of land management techniques that maximize economic and environmental returns in each area are underway through GEF PDF-B support. In addition, an environmental and social assessment of the PROADEL has been undertaken before appraisal as part of the conditions of IDA support. As a result of these measures, final eligibility and prioritization criteria for subprojects that will be proposed by communities under component #1 have been determined and will be refined for the GEF supported subprojects and integrated into the IEM Guideline Document. Baseline activities, to include those under</i></p>

	<i>PROADEL, and, in particular, ASPOP, will support communities and producers' organizations in the project boundary area to diversify their agricultural cultivation, adopt co-cropping strategies and sustainable agricultural techniques (e.g., direct seeding), and pursue higher-value-added exports, that may include certifiably organic produce.</i>
In areas neighboring wetland ecosystems, particular attention should be devoted to agriculture and pastoralism. Irrigation, pesticide and fertilizer application, cropland expansion and overgrazing are the most decisive activity negatively influencing the ecosystem functions and biodiversity.	<i>Through the baseline and GEF activities, communities will receive training on sustainable agricultural cultivation techniques, including pesticide and fertilizer management and their environmental impacts. A pest management plan has been prepared during preparation of ASPOP to assess risks and propose mitigation measures. In terms of pastoral activities, one strategy that will be promoted is the planting of fodder grasses in buffer zones surrounding wetlands and grazing corridors in order to prevent encroachment by pastoralists into core wetland areas that can cause permanent desiccation. Given that a large share of pastoralists in Chad are migratory, redoubled efforts will be placed on raising awareness and building capacity in interchanges and respite locations.</i>
Is there any planned activity concerning the evaluation or functionality of ecological “network of protected areas”?	<i>The objective of the project in this domain is to strengthen the management plans of existing or imminently planned protected areas in the priority zones, in particular integrating community participation and joint management principles. Although establishing a functional network or wider corridor or protected areas would be important, the GEF- supported Lake Chad Basin project, for example, is operating at a much larger spatial scale and is better positioned to tackle some of these issues. As PROADEL is structured as an APL, there will be an opportunity to consider this objective in a subsequently project, which may be eligible for additional GEF support at that time.</i>
Reclamation of arable land should be carefully evaluated in order to avoid irreversible soil degradation process and/or of site damages to wetlands.	<i>This comment will be taken into consideration in the Project Implementation Manual (PIM).</i>

<p>Direct seeding is beneficial, but in some cases require herbicides. Use of herbicides should be avoided in areas that abut wetlands or vulnerable areas (i.e. groundwater vulnerability). “Greater access to agricultural inputs” included in Governmental strategy can in some cases conflict with sustainability goals.</p>	<p><i>Crop rotation and cover crops can be used to manage weeds without resorting to herbicides in the event that direct seeding is deemed an appropriate local strategy. It should be recalled that the majority of smallholders in Chad cannot afford agricultural inputs such as fertilizer and herbicides. GEF incremental activities under the umbrella of PROADEL and ASPOP will ensure that use of these inputs, where desirable and economically feasible, follows best practices for environmental sustainability.</i></p>
<p>Some of the key performance indicators could be tacked using remote sensing techniques.</p>	<p><i>Under project component four, the project will strengthen environment information and analysis in the priority areas, which will include the use of remote sensing and GIS panel data. Forest coverage and water resource availability will be monitored in particular.</i></p>
<p>Could you give more details on the sustainable agriculture techniques that should be adopted? The effective environmental benefit of these technique should be evaluated on a case-by-case basis, paying attention to possible negative side-effects.</p>	<p><i>With GEF Block-B support, targeted research is being undertaken to identify, specifically, the most appropriate, economically viable, and environmentally beneficial agricultural techniques and land management interventions for each of the targeted priority zones. Thus, these recommendations will be carried out on a case-by-case basis. The assessments will consider some of the following techniques: direct seeding, “cordons pierreux”, integrated crop-livestock pilots, better crop management, rainwater harvesting, integrated plant nutrition management, and better residue and manure management. Although many of these measures increase soil fertility and soil organic carbon retention, other potential negative social and environmental side-effects will be taken into account during project implementation.</i></p>
<p>“Open-access” land-use policies represent a threat for natural resources conservation. How can this be addressed while avoiding conflict with local traditions and cultures ?</p>	<p><i>Both the baseline and GEF incremental activities support highly participatory processes for local engagement and active management of shared natural resources, land being a foremost concern. These processes will include the integration of indigenous knowledge and traditional leaders in local development planning that takes into account IEM principles. In creating incentives for local management and collective responsibility for renewable natural resources, it is believed that conflict can be minimized and resource use will be</i></p>

	<i>better rationalized.</i>
The evaluation process of LDPs and subproject proposals is very articulated and starts from a local level (sub-prefectoral). Is there any risk of “particularism” due to this method of evaluation?	<i>Representatives of technical ministries would be on the committees in charge of reviewing LDPs and subprojects proposals, thereby helping to ensure consistency with national policies and standards. Technicians in charge of assisting communities in the preparation of LDPs and subprojects would work in close collaboration with local Project Management Units and use common tools such as the IEM Guideline Document. These tools, will among other things, establish a positive list of eligible subprojects, thus avoiding any particularity in subprojects or LDPs. Finally, Departmental Development Frameworks integrating all strategies and taking into consideration all current development activities will be prepared under PROADEL to ensure better consistency between local and centralized activities.</i>
How is it determined when an area becomes “protected from degradation”? What are the criteria?	<i>The key performance indicators have been refined since STAP submission and this is not longer an indicator.</i>

Additional GEF Annex 13Map CHAD: Community-Based Ecosystem Management Project



Additional GEF Annex 5
CHAD: Community-Based Ecosystem Management Project

