

**UNITED NATIONS ENVIRONMENT PROGRAMME
GLOBAL ENVIRONMENT FACILITY**

PROJECT DOCUMENT

SECTION 1 – PROJECT IDENTIFICATION

1.1 Title of Sub-programme:

1.2 Title of Project: Integrated Ecosystem Management in the Transboundary Areas between Nigeria and Niger

Phase I: Strengthening of legal and institutional frameworks for collaboration and pilot demonstrations of IEM

Phase II: Implementation of cooperative and participatory management strategies for sharing natural resources to improve ecosystem functioning and rural livelihoods

1.3 Project Number: GL/
GF/

1.4 Geographical Scope: Regional: Federal Republic of Nigeria and Republic of Niger

1.5 Implementing Agency: United Nations Environment Programme (UNEP)
Executing Agencies United Nations Office for Project Services (UNOPS) in collaboration with: Federal Ministry of Environment* and Federal Ministry of Water Resources, Government of Nigeria; Ministère de l'Environnement et de la Lutte contre la Désertification* and Ministère de L'Eau, Government of Niger in collaboration with Niger-Nigeria Joint Commission for Co-operation (NNJC) and the Economic Community of West African States (ECOWAS) (*co-ordinating Ministry)

1.6 Duration: 4 years
Commencing November 2005
Completion October 2009

1.7 Total Cost of Project	(US \$)	(%)
Cost to GEF Trust Fund	10,000,000	33.9
Co-financing	19,049,910	66.1
TOTAL COST OF PROJECT	29,049,910	100

1.8 Project Summary

The project (Integrated Ecosystem Management of Transboundary Areas between Nigeria and Niger) will create conditions for sustainable integrated ecosystem management and thereby improve livelihoods in areas covered by the Maiduguri Agreement between the two countries. This will be achieved through (1) developing an integrated legal and institutional framework for collaboration and coordinated financing from the Niger-Nigeria Joint Commission for Cooperation to community-based organisations; (2) harnessing and improving on research-based and indigenous knowledge, and cultural values, to support natural resource management, conservation and productivity; and (3) developing and implementing subregional, catchment and community level ecosystem management plans through participatory and inclusive processes. These plans when implemented will consolidate regional cooperation, conserve habitats and biodiversity, manage water resources, promote sustainable land use practices, control degradation trends, build institutional capacity, improve equity and reduce the vulnerability of local communities to environmental change.

**FULL PROJECT BRIEF
GLOBAL ENVIRONMENT FACILITY**

1. Identifiers:

Project Number:	GF/ GF/
Project Title:	Integrated Ecosystem Management in the Transboundary Areas Between Nigeria and Niger Phase I: Strengthening of legal and institutional frameworks for collaboration and pilot demonstrations of IEM Phase II: Implementation of cooperative and participatory management strategies for sharing natural resources to improve ecosystem functioning and rural livelihoods
Implementing Agency:	United Nations Environment Programme (UNEP)
Executing Agencies:	United Nations Office for Project Services (UNOPS) in collaboration with: Federal Ministry of Environment* and Federal Ministry of Water Resources, Government of Nigeria; Ministère de l'Environnement et de la Lutte contre la Désertification* and Ministère de L'Eau, Government of Niger in collaboration with Niger-Nigeria Joint Commission for Co-operation (NNJC) and the Economic Community of West African States (ECOWAS) (*co-ordinating Ministry)
Requesting Countries:	Federal Republic of Nigeria and Republic of Niger
GEF Focal Area:	Multifocal: International Waters and Biodiversity with relevance to the Cross cutting issue of Land Degradation
GEF Programming Framework:	OP# 12 Integrated Ecosystem Management with relevance to OP# 1 on Arid and Semi-Arid Ecosystems, OP#9 on Integrated Land and Water Management and OP#15 on Sustainable Land Management.
Project Duration:	8 years: 4 + 4

2. Summary

The project (Integrated Ecosystem Management of Transboundary Areas between Nigeria and Niger) will create conditions for sustainable integrated ecosystem management and thereby improve livelihoods in areas covered by the Maiduguri Agreement between the two countries. This will be achieved through (1) developing an integrated legal and institutional framework for collaboration and coordinated financing from the Niger-Nigeria Joint Commission for Cooperation to community-based organisations; (2) harnessing and improving on research-based and indigenous knowledge, and cultural values, to support natural resource management, conservation and productivity; and (3) developing and implementing subregional, catchment and community level ecosystem management plans through participatory and inclusive processes. These plans when implemented will consolidate regional cooperation, conserve habitats and biodiversity, manage water resources, promote sustainable land use practices, control degradation trends, build institutional capacity, improve equity and reduce the vulnerability of local communities to environmental change.

3 Costs and Financing (Million US \$)

GEF:	Project:	Phase 1 (4 years)	5 million
		Phase 2 (4 years)	5 million
	PDF A:		25,000
	PDF B:		350,000
	Subtotal GEF		10,375,000
Co-Financing:	Government of Niger in kind		1,000,000
	Government of Nigeria in kind		3,000,000
	Contribution from ongoing projects¹		7,245,000
	Other sources (through GM)		7,000,000
	Subtotal Co-financing:		18,245,000
	Total Co-financing by phase		
		Phase 1 ²	9,122,500
		Phase 2	9,122,500
	Total Project Cost:		28,620,000

4. Associated Financing (Million US\$)

Nigeria:	42,345,682
Niger:	654,318
Total associated financing:	43,000,000

5. Operational Focal Point Endorsement

Nigeria: Mr. S.O. Adekunle, Permanent Secretary, Federal Ministry of Environment. Endorsed on 23 February 2004

Niger: Mr. Hassane Saley, GEF Political Focal Point, Conseil National de l'Environnement pour un Développement Durable.

Endorsed on 25 February 2004 (GEF OFP post vacant – see attached letter)

6. IA Contact

Mr Ahmed Djoghlaflaf, Director, UNEP Division of GEF Coordination, UNEP, Nairobi, Tel. 254-20-624153; Fax: 254-20-520825, Email: ahmed.djoghlaflaf@unep.org

¹ Mainly Nigeria Federal Government support to the Combat of Desertification in the Frontline States

² Extra US \$ 804,901 has been raised for Phase 1 during project appraisal

LIST OF ACCRONYMS

CBO	Community-Based Organisation
CIDA	Canada International Development Agency
CILSS	Comité Permanent Inter Etats de Lutte Contre la Sécheresse au Sahel
CNEDD	National Environment Council for Sustainable Development
EA	Executing Agency
ECOWAS	Economic Community of West African States
EU	European Union
FEPA	Federal Environment Protection Agency
GEF	Global Environment Facility
GIS	Geographic Information System
GM	Global Mechanism of the UNCCD
IA	Implementing Agency
ICRISAT	International Crop Research Institute for the Semi-Arid Tropics
IUCN	International Union for Conservation of Nature
KNARDA	Kano State Agricultural and Rural Development Authority
KSALDP	Katsina State Agricultural and Community Development Project
LBC	Local Bilateral Committee
LCBC	Lake Chad Basin Commission
LCD/GRN	National Action Plan for Combating Desertification and Natural Resources Management
NAP	National Action Programme to Combat Desertification
NBA	Niger Basin Authority
NBSAP	National Biodiversity Strategy and Action Plan
NEAZDP	Northeast Arid Zone Development Programme
NEPAD	New Partnership for Africa's Development
NGO	Non Governmental Organisation
NNJC	Niger Nigeria Joint Commission for Collaboration
NPU	National Programme Unit
NTC	National Technical Committee
OP	Operational Programme
PNEDD	National Environment Programme for Sustainable Development
PRS	Poverty Reduction Strategy
RBDA	River Basin Development Authority
RCU	Regional Coordination Unit
RSC	Regional Steering Committee
RTC	Regional Technical Committee
SEPA	State Environment Protection Agency
SEPP	Sokoto Environmental Protection Programme
SRAP/WA	Subregional Action Programme to Combat Desertification for West Africa and Chad
TDA	Transboundary Diagnostic Analysis
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNOPS	United Nations Office for Project Services
WB	World Bank

SECTION 2. BACKGROUND AND CONTEXT (Baseline Course of Action)

2.1 Regional Policy Context

1. This project, Integrated Ecosystem Management in Transboundary Areas between Nigeria and Niger, is linked to the New Partnership for Africa's Development (NEPAD) and its Environment Action Plan. It will support the implementation of thematic area one under this action plan on Combating Land Degradation, Drought and Desertification and the Sub-Regional Action Programme for West Africa and Chad (SRAP/WA) of the United Nations Convention to Combat Desertification (UNCCD). The systems boundary for the project is four shared catchments along the countries common border (Annex F 1). The catchments integrate hydrological, ecological, economic and social functions, and the threats to these functions have a strong transboundary component.

2. The project was initiated through consultations with and between the two countries, for the purpose of implementing the Maiduguri Agreement (1990), its main political instrument, and strengthening the Nigeria-Niger Joint Commission for Cooperation (NNJC). The Agreement expresses a common political desire to optimize the use of renewable natural resources, while sustaining the functions of the catchment ecosystems.

3. The implementation of the Agreement, in spite of its amendment (Sokoto, 1998), has been ineffective for the following reasons: a lack of information on the status and present use of the resources; an absence of a harmonised strategic framework; and a lack of capacity in the institutions mandated to implement it, including the NNJC. The Joint Commission (established in 1971, with its statutory provisions redefined in 1973), has the essential functions of (1) strengthening cooperation between the two countries, and (2) supporting development programmes and projects of common importance. It is assisted by a Permanent Technical Committee of Experts.

4. The NNJC is a sub-regional organisation in charge of management and coordination of the project. Its areas of competence include: (1) statutory, legislative and institutional aspects; (2) mobilization of partners/stakeholders; (3) equitable sharing of the benefits derived from shared resources management; (4) scientific research and capacity building, and (5) stimulation of exchanges through local, regional and national consultation structures.

5. The institutional framework has been strengthened by two other measures: (1) the Abuja Agreement (1990), which is primarily political; and (2) SRAP/WA, which is strategic and operational. In the Abuja Agreement, the two countries commit themselves to ensure the conservation, rational use and development of land and water resources and of fauna and flora, and also to collect and exchange information on desertification, through the NNJC.

6. The SRAP/WA, which was finalized in 1999/2000, implements the provision of the Convention to Combat Desertification (UNCCD, 1994) for a strategic tool shared with other countries in the subregion. The Programme aims to define and implement long-term strategies, and to support subregional actors in managing shared resources and implementing joint programmes.

7. The project proposed is linked to the SRAP Thematic Area on Sustainable Management of Shared Water Resources. It also integrates the expectations of NEPAD, through its transboundary character, its multi-sectoral dimension, its expected institutional, bio-physical, economic and social impacts, and opportunities for subregional and local partnerships. These will ensure the participation of all actors, and better equity in distribution of usufructs.

8. The shared catchments, which delineate the intervention zone of the project, provide a biophysical, economic, social and cultural basis for implementing a common programme. This project will be based on the common interests of all stakeholders, including development partners, national and local governments, civil society, and beneficiary communities. Priority will be given to institutions and processes of governance and management which engage the participation of all sections of the communities. The wealth and diversity of biological resources (Annex F 2), the value

of shared water resources (Annex F 3) and economic and cultural potentials (Annex F 4) are among the considerations calling for synergies to be realised among the relevant global conventions, subregional and national development plans and programmes.

2.2 National Policy Context

9. Despite the efforts of both governments over four decades, there are grounds for serious concern that processes of land degradation are deeply rooted in the transboundary catchments (Annex D). These processes, often grouped under 'desertification', include the loss of soil nutrients and organic matter, the reduction or degradation of natural woodland, the reduction of surface water resources and lowering of groundwater tables, and the reduction of biodiversity. A consequent loss of bio-productivity can increase livelihood vulnerability in communities, whose local economies are thereby weakened, and provoke increased migration. They may also exacerbate conflicts among users of natural resources. These outcomes can be aggravated by an absence of coherent policies, poor institutional capacity, and absent or inadequate legal provisions. But sustainable technologies and land management may not always be available or economically feasible for poor households. Furthermore, rapidly growing populations increase the pressures on natural resources.

10. Despite the efforts made by the two governments for more than four decades, desertification persists and manifests itself in the field through disappearance of vegetation cover, impoverishment of soils, reduction of water resources, destruction of biological diversity and internal and external population migration. These processes exacerbate the conflicts among the different users of natural resources by increasing livelihood vulnerability of the communities whose local economies are increasingly being weakened. The aggravating factors are many: political-institutional (absence of coherent policies, poor institutional capacity, absence or inadequate legal and legislative provisions) socio-economic (population growth, poverty) or related to the production systems (destructive land management practices, mineral exploitation, etc.).

11. The preparation phase of the proposed project has identified high population pressure, degradation of land, water and ecological resources, and weak regional and local institutions and planning frameworks as major challenges. The proposed project therefore offers solutions to the identified problems through activities to control land degradation and improve productive potential that aim to generate incomes for local people and alleviate poverty. Also proposed are activities for institutional and organizational capacity building for management of shared land, water and ecological resources at sub-regional, national and local levels.

12. The proposed project addresses the implementation of structural adjustment policies, adopted by both countries, at the local, national and sub-regional levels. It has been identified according to GEF principles. It will search for better synergies between the co-financing arrangements. This is how the efforts of both countries have been understood from national level (Niger) or federal (Nigeria) to community level (Niger) or states level (Nigeria). These different levels, political and administrative, contribute through their present financing to the achievement of several outcomes planned for the project. These are (mainly) the establishment of appropriate legal and institutional frameworks, and of sub-regional mechanisms for exchanging information, increased and responsible participation by local populations, through the valorization of their knowledge, and the improvement of agricultural productivity and of desertification control.

13. The project area, that is, the border region of the two countries, as well as its thematic area, also constitutes national priorities clearly indicated by the Governments of both countries. These priorities are particularly oriented to the restoration of the productive potential of natural resources as outlined in the National Action Programmes (NAPs) under the Convention to Combat Desertification. Such restoration will entail integrated activities to control desertification, minimise risks related to drought, and reduce vulnerability to environmental changes. The proposed project will contribute to this priority through identifying and implementing concerted efforts on the sustainable management of shared natural resources: land, water and biological diversity. The project will also further the implementation of the National Biodiversity Strategy and Action Plan (NBSAP) in the two

countries. The political support of both countries is affirmed through new attitudes: the transfer of responsibilities, decentralization, commitment to good governance, local management of conflicts and co-management. The project proposed is part of this logic of institution building, and harmonization of institutional and legislative frameworks.

14. *In Niger*, the National Action Programme for Desertification Control and Natural Resources Management (NAP/DC/NEM) was adopted in December, 2000 by the Niger Government after a long process of consultations with relevant partners. Since the adoption, the country has made notable efforts in: (1) institutional measures to improve implementation and harmonize interventions (putting in place a consultative body, the National Council for Environment and Sustainable Development; establishing regional structures; creating a technical ministry; and legislative and statutory reforms); (2) assistance given to civil society for the development and implementation of projects (capacity building, promoting good governance); (3) mobilising partners in desertification control (establishing bilateral and multilateral consultative advisory mechanisms; signing financing agreements; preparing for the creation of a monitoring and evaluation system for desertification); (4) mobilizing financial resources (a little less than 2 billion FCFA were mobilized through sectoral or integrated funding agreements); and finally, (5) mobilising internal resources (the national Investment Programme allocates 23% of resources to the rural development sector, while 500-800 millions CFA are allocated to annual afforestation campaigns).

15. *For Nigeria*, policies and plans relevant to desertification control include the National Policy on the Environment, the National Agricultural Policy, the Nigerian National Environmental Action Plan (NEAP), and the States Environmental Action Plans (SEAPs). Others include the National Forestry Action Plan, the National Conservation Strategy, the National Resources Conservation Action Plan, the National Water Resources Master Plan, the National Biodiversity Strategy and Action Plan, the Green Agenda of the VISION 2010 Report, Nigeria's National Agenda 21 and Nigeria's National Action Plan to Combat Desertification (NAP). The development of the NAP began in 1998 and was finalised in 2000. The document identifies long-term integrated strategies that focus simultaneously on improved productivity of land and on the rehabilitation and sustainable management of land and water resources. Since adoption, the NAP document has served as a point of reference for planning and implementing development programmes in affected areas of the country. Projects include (among others):

- Establishing a shelter-belt from the Chad Basin in the northeast to the
- Sokoto River Basin in the northwest,
- Community woodlots and windbreaks,
- Sand dune fixation pilot projects,
- Integrated sustainable model village projects.

16. Apart from environmental objectives, the priority of the two countries is poverty alleviation. To this end, Niger and Nigeria have both prepared and adopted a Poverty Reduction Strategy (PRS). These give due recognition to relevant sectoral policies, giving prominence to rural development and the conservation of renewable natural resources, the empowerment of local communities, the need to increase participation of civil society, and equitable sharing of benefits accruing from natural resources management and conservation. The project is in line with such expectations.

17. *In Niger*, the PRS is based on a set of central themes: good management of public affairs; stimulating and integrating economic activity, strengthening institutions, promoting the private sector and sustainable management of natural resources. The key themes are enhancing economic growth, generating incomes, improving income distribution, and improved governance.

18. *In Nigeria*, the problem of poverty has, for some time, been a cause of concern to the Government with attention focused initially on rural development policy. Its mission is to achieve sustainable livelihoods through simultaneously addressing development, sustainable resource management and poverty alleviation. The thrust of current government policy is, therefore, to enable the

poor and the more vulnerable sections of society to achieve sustainable livelihoods. The approach is to empower communities, families and individuals through a sustained, well coordinated and comprehensive programme of poverty alleviation, through:

- providing opportunities for the poor to participate more fully in the development process,
- delivering social services to the poor,
- involving beneficiaries in development processes, and
- providing social safety nets for the poor and the vulnerable groups.

19. The proposed project is, therefore, in line with poverty reduction priorities in both countries. It is urgently needed to catalyse the implementation of environmentally friendly land management activities and equitable sharing of benefits. Desertification control, conservation of biodiversity and poverty alleviation are priorities in the transboundary zone, where the threat is perceived to be the degradation of natural resources, the deterioration of productive capital and the weakening of local economies through the destruction of vegetal resources, a loss of farmland, food and income, decreasing yields owing to erosion, and a lack of alternative livelihoods.

20. The project will address these problems. As the linkages have been shown between national priorities and project objectives, so successful execution of the project will strengthen local economies and alleviate poverty, transfer expertise to local populations, and ensure resources and good governance in the sustainable management of shared natural

Other instruments of national policy having particular relevance to the transboundary zone include the following:

21. *In Niger*, the National Action Plan for Combating Desertification and Natural Resource Management (LCD/GRN); under the National Environment Programme for Sustainable Development (PNEDD) aims to protect the natural capital of the country through the promotion of improved technologies and stakeholder participation, with regard to land, livestock, natural vegetation and wildlife, water development and fishing, mineral exploitation, drought management (including early warning), human resources and institutions. The supervising institution is the National Environmental Council for a Sustainable Development (CNEDD). Numerous legal and regulatory measures exist, though weakly enforced. The liberalisation of economic policy during the 1990s, and the Rural Code (of land tenure reform) both help to define the policy environment of the proposed project, which will build on, and realise the potential of these plans and provisions.

22. *In Nigeria*, the Federal Environmental Protection Agency (FEPA, founded in 1988 and later transformed into a Ministry) is the apex institution with regard to desertification control, supported by State Agencies/Ministries (SEPA). A Department of Drought and Desertification Control has also been set up in the Ministry of Environment. Other relevant federal programmes have been sectoral, notably: the River Basin Development Authorities (RBDAs, among which the Sokoto-Rima authority controls the downstream sectors of the Maggia-Lamido and Gada-Gulbin Maradi shared catchments, and the Chad Basin Development Authority controls the entire basin of the Komadugu Yobe shared catchment and its upstream tributaries); state-wide Agricultural Development Programmes and the National Fadama Development Project (financed with World Bank assistance); and afforestation programmes (financed with World Bank and EU assistance); and renewable energy programmes put in place by the Energy Commission of Nigeria. Multi-sectoral rural development programmes have been implemented in Yobe, Kano, Katsina and Sokoto States: the Northeast Arid Zone Development Programme (NEAZDP, 1990s), which includes the Nigerian sector of the Komadugu Yobe shared catchment; the Kano State Agricultural and Rural Development Authority (KNARDA, 1980s-1990s), covering the Nigerian sector of Tagwai-El Fadama; the Katsina State Agricultural and Community Development Project (KSACDP, 1990s), including Gada-Gulbin Maradi; and the Sokoto Environmental Protection Programme (SEPP), including Maggia-Lamido. Federal policies of particular importance to the proposed project are: the Land Tenure Act (1978), which regulates access to productive land, and the Rural Development Sector Strategy (2001), which sets out the aims

of a broader policy framework. The proposed project will link into these structures as appropriate and build on developmental lessons learnt.

23. The project is also in line with the participatory approach of the action plans of several Conventions (UNCCD, UNCBD, UNFCCC, and the Ramsar Convention on Wetlands).

2.3 Status and trends of natural resources in the shared catchments

24. The transboundary zone has four shared catchments, from west to east the *Maggia-Lamido*, *Gada-Gulbin Maradi*, *Tagwai-El Fadama* and *Komadugu Yobe* (Annex F 1). In order of size, they are briefly described as follows:

25. The **Komadugu Yobe** is the largest by far, with a total area of about 80,000 km², the greater part of it in Nigeria. The headwaters are in the Jos Plateau and the high plains of Hausaland, whence the main tributaries (Kano, Challawa and Hadejia Rivers in the west, Jama'are and Komadugu Gana in the east) flow towards Gashua and Geidam, whence the river flows to Lake Chad. Only the downstream part of the basin, where the river constitutes the border between Nigeria and Niger, is included in the Maiduguri Agreement. During the rainy season, the river overflows its banks, creating a mosaic of low lying seasonally flooded areas (*fadamas*) with hydromorphic or sandy soils. Losses from seepage and evaporation are very high, and the river contributes <10% of inflow to the Lake. The Kano, Challawa and Komadugu Gana Rivers are dammed upstream (the first since 1974), significantly affecting flow. The first supplies water to the Kano River Irrigation Project and to Kano City. In the shared catchment area, the Komadugu Yobe is used intensively for pump-irrigated agriculture.

26. The **Gada-Gulbin Maradi** catchment covers 9,787 km², of which 3,803 km² is located in Nigeria and 5,984 km² in Niger. The river, which has an intermittent hydrological regime, originates in Nigeria, enters Niger to flow past Maradi in a well-defined *fadama*, and after a course of approximately 130 km, re-enters Nigeria to join the Rima River, which eventually flows into the Niger. The upper basin is composed of gneisses and granites, in which aeolian fillings of sandy texture are dispersed. The lower basin is composed of sedimentary sands, silts and clays, the last associated with fertile vertisols. In Nigeria, the Master Plan for Katsina Water Use (1975) defined actions for water mobilisation in the Nigerian part of the basin with the goal of satisfying water requirements for about 575,000 people, and for irrigation development in an area of 5,000 ha. In Niger, flood – residual moisture irrigation systems occupy 2-2,500 ha. The construction of the Jibiya dam in Nigeria has, however, considerably diminished the water supply to Niger (the reduction in overall water supply was estimated at 40% according to the Sokoto State Ministry of Agriculture), thus reducing the possibilities for irrigation in the relatively fertile flood plain sector in Niger.

27. The **Tagwai-El Fadama** catchment covers 8,705 km² of which 5,889 km² is in Nigeria and 2,816 km² in Niger. The Tagwai River flows northwards from Katsina State in Nigeria, into Maradi Department of Niger and south-west Zinder Department, where it is joined by the Mai Faru. At Gazawa they form the El Fadama River, and further north in the fossil valley of the Gulbin Kaba, the water disappears into sandy aeolian soils. The Ajiwa Dam, constructed on the Tagwai in 1973, provides water for irrigation, livestock and domestic use.

28. The **Maggia-Lamido**, the smallest of the catchments, covers 4,138 km², of which 2,119 km² are located in Niger and 2,019 km² in Nigeria. The sources are in Niger, in the uppermost part of the Niger basin. After about 140 km, the river enters Nigeria near the city of Birnin Konni, changing its name to Lamido. After 8 km, it feeds Lake Kamalo, which does not have an outlet. Below Tsernawa, the river enters a flood plain. It has an intermittent hydrological regime, highly variable. In Niger, a programme of constructing small earth dams began in the 1960s in the upper part of the basin. The majority of these dams are presently fully silted and need rehabilitation. By the end of the 1970s, two dams were built to support the Koni I and II irrigation schemes: at Zongo (1977), later replaced by Mozague (1980) further downstream. In Nigeria, Kalmalo Lake is used for the provision of drinking and irrigation water and fishing. Soils around the lake are suitable for irrigated agriculture.

29. The shared catchments contain a mosaic of semi-arid ecosystems with biodiversity of global significance (Annex F 2). The physiography of the three eastern catchments is characterised by large, parallel fossil dune ridges dominated by herbaceous vegetation, interdune depressions with wooded *Acacia* savanna, and wetlands in the lowest lying areas. The Maggia-Lamido catchment, however, has a landscape of denuded or sand-covered plateaux, steep escarpments, and basins or valleys with more silty soils. The flora in these Sahelian environments is comprised of nearly 400 species, and each major soil type supports specialised plants that do not grow on other soils. The light sandy soils have the highest number of specialised species. Dominant therophyte and phanerophyte species demonstrate adaptation of the ecosystems to the prevailing dry conditions. Rainfall variability is also high, combining with the varied ecosystems to produce high temporal and spatial variability in plant biomass production, which is reinforced by cultural and economic diversity in the management of natural resources. Rural livelihoods are mainly based on small-scale agriculture and transhumant pastoralism. Many cattle routes cross the international border. Livestock, crops and non-agricultural products are also traded across the border. The border zone includes forest reserves and protected areas with endangered animal and plant species (Annex F 2). However, many of the forest reserves are degrading owing to farmers' encroachments, grazing pressure and excessive cutting for fuelwood, which is the main source of energy for both rural and urban populations. The total population of the shared catchments numbers about 12 million (Annex F 4). Dominant ethnicities on both sides of the border (in the three western catchments) are Hausa (farmers and traders) and Peulh or Fulani (pastoralists and agro-pastoralists); in Komadugu Yobe, Kanuri-Manga (farmers) with Fulani and other minority groups.

30. The shared catchments have experienced a decline in rainfall between the 1960s and 1990s, from 20 to >30%. The isohyets of average rainfall (30-year periods) have shifted about 100km southwards. Annual and monthly rainfall is characterized by high variability, with potential evapotranspiration far in excess of precipitation even in a good year. There has been a reduction in the number of rainy days and in the duration of the rainy season, which adversely affects farm operations and often results in low yields. One in three years may produce a deficit in cereal production (particularly in Niger).

31. The variability and declining trend in rainfall has hydrographic consequences for the spatial extent and volume of surface water, the depth to water table and recharge. These changes are compounded by the effects of land use activities on aquatic environments. They may affect the flow of nutrients into water bodies, impoverishing or enriching them. In spite of low average rainfall, the high intensity of rain events together with sparse vegetation cover (and an absence of water harvesting structures) can cause heavy floods, accompanied by substantial loss of soil. A dwindling of biological resources and the invasion of exotic plant species may result from the degradation of aquatic environments. The invasive species include harmful aquatic weeds (*Eichomia crassipes*, *Sida cordifolia*), which can obstruct irrigation canals, increase evapotranspiration, flood bird reproduction sites, etc.

32. A reduction in vegetation cover has led to the fragmentation of faunal habitats, a reduction in carbon storage below and above ground, and in the quality of pastures. Only a few natural riparian forests still serve as refuges for large fauna. Changes in the preferential use of the natural environment, combined with climate change, have led to a reduction of bio-diversity. But in the farming landscape, useful tree species are conserved to form agro-forestry parkland. With regard to water resources, the trends have increased the vulnerability of fishing livelihoods through heightened variability in catches. Nevertheless, the species diversity has been maintained, in spite of the scarcity of certain species that are in great demand.

33. Soils deprived of vegetative cover for most of the year are more exposed to rain, wind, high temperatures and desiccation, and are subject to more intensive erosion. In Nigeria, it is estimated that 125,000-150,000 km² of land north of latitude 12° North are vulnerable to wind erosion. Wind

can also reactivate fossil dunes, while water erosion is evident in the gullies seen in farming zones. The cumulative impact of erosion in the shared catchments includes:

- salinization of irrigated land as a result of evaporation;
- waterlogging of cultivated land without adequate drainage;
- siltation of watercourses owing to increased sediment load;
- reduced infiltration owing to the surface sealing of soils.

34. Land degradation in the catchment areas is believed to have reduced potential bioproductivity and biodiversity, and caused the loss of lands formerly suitable for plant and animal production.

2.4 Threats and Root Causes

35. The root causes of land degradation, the main threat to the shared catchments, are many and are characterized by complex interactions (Annex D). It is therefore often impossible to distinguish between cause and effect and many phenomena display characteristics of both.

36. The background to understanding the threat of degradation is the decline in average rainfall and increased frequency of droughts between the 1960s and the 1990s. Responses to these challenges, and that posed by population growth, have both exacerbated and ameliorated the effects of climate change. The root causes of the degradation threat, which constitute the baseline scenario, are argued in greater detail in the Annex, and are as follows:

- Discontinuities in the direction and application of policy at national level, and inadequate harmonisation at the international level, have created gaps and inconsistencies in the legal and institutional framework.
- The effects of rapid population growth are felt in increasing demands for farmland.
- The growth of agricultural markets for crops and livestock, and for fuelwood and timber, linked to urbanisation, increases these demands while offering economic opportunities.
- The demand for land increases competition for private access rights, putting a strain on land tenure institutions which are vulnerable owing to recent reforms. It is possible that the same may occur with respect to water resources, at present free.
- Technological change has not occurred on a scale necessary to bring about intensified, sustainable land use. Where suitable technologies do exist (indigenous or introduced), investment capacity is weak.
- Rural households divert their labour (and capital) away from agriculture, into off-farm activities, including increased short- or long-term migration. While this is a rational and necessary economic response, savings are not available on an adequate scale to re-capitalise agriculture.

37. Complex systemic relations lie behind natural resource management in the four catchments. Given the productive constraints imposed by rainfall, it is no longer an option for the rural population in its entirety to depend exclusively on agriculturally based livelihoods. Neither is it sensible for policy to treat natural resource management only in a sectoral context. Structural transformation should occur as agricultural producers become a smaller proportion of total population, first relatively, later absolutely. Given the growing strength of inter-regional and inter-sectoral linkages, the objective of policy should be to discourage the mining of natural capital and to provide incentives for a flow of savings into investments in more sustainable forms of management. Incentives are provided either through policies which enable resource managers to make better decisions (e.g. positive changes in tenure rules), or through variables resulting from macro-economic policy (e.g. change in input and output prices). Such private, small-scale investments are critical to achieving sustainable management of natural resources. The decisions of resource managers assume a central place. Empowering, facilitating and supporting resource allocations at local level that both improve livelihoods and sustain the resource base calls for radical departures from older models of top-down, technically-led interventions towards harnessing indigenous knowledge and cultural values by blending them with research-based findings. The proposed project will address this challenge.

SECTION 3. RATIONALE AND OBJECTIVES (Alternative)

3.1 Justification for GEF Financing

38. The proposed project aims at ensuring conservation and sustainable use of natural resources within the economic and social development frameworks of the transboundary area of Nigeria and Niger. The identification and preparation followed a process of national and bilateral consultations (Annex F 5). It is a project born out of the observations made by the two countries on the mixed results of fragmentary and isolated interventions, and on the negative impacts of transboundary reciprocal externalities.

39. The project will therefore become a policy instrument for guaranteeing equitable sharing in development, conservation and utilization of resources in the four shared catchments (Maggia-Lamido, Gada-Gulbin Maradi, Tagwai-El Fadama and Komadugu Yobe) covered by the Maiduguri Agreement. The transboundary area covers 319,600 km² between longitudes 2°15' and 14°15' East and latitudes 10° and 14°30' North (Annex F 1). The shared catchments cover a land area of 102,630 km² with a total population of 12,360,364, mostly farmers and pastoralists.

40. The intervention zone is characterized by climatic changes and an intense threat of natural resource degradation, in particular of land, biodiversity and water resources. The project is designed to promote lasting solutions to the problems identified. It will help remove the threats to ecosystem sustainability, ensure their rehabilitation and restoration, promote the conservation and sustainable use of biodiversity of global significance, and facilitate the coordinated management of transboundary water resources. It will also contribute to the sequestration of carbon through enhancing ecosystem goods and service provision. An integrated ecosystem management, IEM concept that is outlined in Annex F1 will be applied in this project.

41. The project intends to adopt an integrated approach for participatory management of all the resources of shared natural ecosystems, including land, water and biological resources. The activities envisaged will focus on improvement of knowledge of the resource base through establishment of a long-term information management system, the formulation of common strategies for managing shared water and forest resources, institutional capacity building, investments in land reclamation and sequestration of carbon through restoration and protection of vegetation cover.

42. The project will lead to the formation of multi-stakeholder partnerships to harness indigenous knowledge and create an enabling environment for financing and executing pilot projects. A communications programme, geared to awareness building, information sharing and training of beneficiaries and other stakeholders, will sustain the implementation, monitoring and evaluation of the activities. The project will seek complementarity and synergies with on-going or planned national and joint efforts, supported by a legal and institutional component (Annex F 5).

43. Pilot testing of community-based approaches to the integrated management of semi-arid ecosystems will provide lessons and information for the wider region. To that end, the project will benefit from the experience of UNEP, in sub-regional coordination, the development of partnerships, and the promotion of sound natural resource conservation and management practices.

3.2 GEF Programming Context

44. Land degradation is a major threat in the Nigeria-Niger transboundary zone. The project will contribute to GEF's focal area of land degradation (designated at the Second GEF Assembly held in Beijing, China in October 2002). The transboundary diagnostic analysis (TDA), undertaken in the PDF B phase, highlighted strong links between land degradation and other GEF focal areas.

45. The project meets the requirements of the GEF's OP 12 on Integrated Ecosystem Management. It will generate multi-focal benefits in *land degradation*, *biodiversity* and *international waters*, with secondary benefits in *climate change* (enhanced carbon sequestration in rehabilitated lands and ecosystems). The project will create an enabling environment for integrated ecosystem

management at national and regional levels, strengthen national and regional institutions and mechanisms charged with coordinating activities in the shared catchments, and catalyse on-the-ground investments in integrated ecosystem management in each catchment, through pilot demonstrations, community trust funds, and partnership building with other donors. The project also has strong linkages with Arid and Semi-Arid Zone Ecosystems (OP 1) and the GEF strategic priority on mainstreaming of biodiversity in production landscapes, Integrated Land and Water Management (OP 9) and the recently approved Sustainable Land Management Programme (OP 15).

46. Mechanisms to coordinate and exchange experiences with similar projects in the two countries, as well as the region, will be put in place. Coordination is already taking place with two GEF-funded projects (Reversing Land and Water Degradation Trends in the Niger Basin, and Reversal of Land and Water Degradation Trends in the Lake Chad Basin Ecosystem) through the NNJC's existing membership in the Niger Basin Authority (NBA) and the Lake Chad Basin Commission (LCBC). Links and synergies with the WB/GEF-funded National Fadama Development Programme in Nigeria will also be sought. Coordination and synergies with other relevant projects such as the Senegal River, Fouta Djallon, Volta Basin and aquifer management projects in West Africa will be facilitated under the SRAP/WA (coordinated by ECOWAS and CILSS), and its thematic area on sustainable management of shared water resources.

3.3 Global Environment and Development Objectives

47. The project goal is to establish sustainable conditions for integrated ecosystem management for improvement in the livelihoods of the local communities and preservation of globally significant ecosystems in the transboundary catchments between Nigeria and Niger. The project has three purposes, each taken up in a separate component as follows:

48. *Purpose 1.* Subregional integration, harmonisation and cooperation in strategies for the management of transboundary natural resources.

Component (1) will create the conditions necessary for implementing the project. It will find solutions to the institutional and operational problems which have hampered efforts hitherto. The legal and legislative framework for institutional operations and natural resource management, including conflict prevention, will be strengthened. Subregional, catchment level, and community-based planning and implementation will be set up. Coordinated financing between the two countries and partners will be enabled.

49. *Purpose 2.* Strengthened capacity to harness indigenous and research-based knowledge to support the conservation and equitable sharing of natural resources, and reduce vulnerability to environmental variability and change.

Component (2) focuses on harnessing local knowledge and values, together with research-based knowledge on the causes and impacts of degradation, as a basis for designing, testing and implementing land management activities by communities. The objective is to minimise vulnerability to environmental change and variability through developing and promoting sustainable practices. Communities will participate in evaluating ecosystem services, identifying and promoting good practices (for managing biological diversity, land development, improving production systems, rehabilitating degraded land, and managing conflict). The indirect incentives for investing in conserving or sustaining the productivity of natural resources will be identified and strengthened. Capacity building for local partners will be provided. A subregional mechanism for exchanging and disseminating good practices will be established.

50. *Purpose 3.* Enhanced planning and implementation of cooperative and participatory management strategies for sharing natural resources, reversing ecosystem degradation, conserving biodiversity and increasing productivity to improve rural livelihoods.

Component (3) will focus on involving all stakeholders in developing common strategies for integrated and participatory management of shared natural resources, with the aim to improve rural livelihoods. At the catchment level, bilateral protocols and plans for conserving and exploiting shared water resources, protecting priority habitats and managing degraded sites will be implemented. Community-based plans for natural resources that integrate local and appropriate new knowledge will be developed and implemented in 24 pilot areas. Direct incentives for participation will be strengthened. New and profitable technologies for sustainable use of natural resources will be identified and developed.

SECTION 4. COMPONENTS AND EXPECTED RESULTS

4.1 Project Activities/Components and Expected Results (see *Logframe, Annex B*)

51. **Purpose 1:** Subregional integration, harmonisation and cooperation in strategies for the management of transboundary natural resources.

1.1 Legal and institutional framework for subregional co-ordination in the formulation and implementation of harmonized policies, the management of conflicts, and regulation of access to and benefits from natural resources, functional

The subregional policy and legal framework for natural resources management will be reformed and the capacity of the NNJC strengthened. This will entail review and harmonization of existing laws and regulations, particularly the Maiduguri and Abuja Agreements, with regard to enhancing biodiversity conservation and integrated natural resources management. A full institutional review of the NNJC will also be undertaken and a capacity building programme developed and implemented. Institutions and processes for the regulation of access to natural resources, and the prevention and management of conflict (especially as related to transhumance), will be strengthened.

1.2 Strengthened subregional, catchment, and community level institutions and processes for collaboration among partners, representing interests, identifying strategies, and planning NR management or projects, operational

A Memorandum of Understanding will be developed for collaboration among partners. Local Bilateral Committees (under the terms of the Maiduguri Agreement) will be strengthened. Community-based organisations and other local partners will represent interests, identify strategies, and develop plans for managing natural resources, using improved knowledge in decision making. These will support the development of community management plans for 24 pilot areas distributed among the four catchments.

1.3 Co-ordinated financing of project activities between the two countries, at catchment and community level enabled and implemented

A common fund will be established at the NNJC for integrated natural resources management in the transboundary zone, following evaluation of needs, identification of partners and mobilisation of funds. Training in financial administration, sectoral consultations, and project preparation and management will be provided. Functional linkages with local government (*arrondissement, canton*, local government authority, district and village area) and community-based organisations will be developed.

52. **Purpose 2:** Strengthened capacity to harness indigenous and research-based knowledge to support the conservation and equitable sharing of natural resources, and reduce vulnerability to environmental variability and change

2.1 Research-based knowledge of the natural ecosystems of the shared catchments, their past and present management, and the causes and impacts of land degradation and drought, enhanced and in use

Based on resource inventory and mapping, analysis and modelling of population, migration, land use, livestock and transhumance, rainfall and hydrology (including water quality), a database and Geographic Information System (GIS) will be established at the NNJC. A drought forecasting capability for early warning and risk prevention, and a monitoring network for predicting hydrological dynamics and impacts of land degradation, will be developed. Applications of information will be strengthened in evidence-based planning and policy making and in advising stakeholders.

2.2 Local knowledge, values and practice, according to both economic and cultural criteria, integrated into natural resources management activities and programmes

Community-based valuations of ecosystem goods and services (including biodiversity) will be carried out in the 24 pilot areas, using economic and cultural criteria and local experience of trends. Local knowledge of management and technological options will be inventoried, together with opportunity costs and trade-offs. With the assistance of project staff, these valuations will be accessed to the database at the NNJC. Capacity will be built for their analysis and publication, and their use in evidence-based decision making. Guidelines integrating local knowledge and values into natural resource management will be developed and published. The incentive structure will be reviewed with regard to promoting small-scale investments in sustainable management.

2.3 Good practices for managing equitable access to, and conflicts of interest in, natural resources and their benefits, identified and promoted

Local consensus building on equity in access to and benefits from natural resources will be developed in the 24 pilot areas. In collaboration with local judicial and governmental bodies, methods of strengthening administrative and judicial channels for conflict resolution will be identified and implemented under the terms of legal instruments applying in each country. Strengthened or new local institutions for equitable and participatory management of common pool resources will be set up and made operational and pilot projects for the rehabilitation of degraded lands. Sensitization, information dissemination and promotion of equity and sustainability objectives will be used to reduce pressures and conflicts.

2.4 Subregional mechanism for recording, exchanging and disseminating technologies, good practices and experience established

An information support system for communication and exchange of information will be established at the NNJC. A database on good practices in natural resources management and conflict resolution will be created and information will be disseminated in bulletins, guides (using Hausa, French and English) and on a web site. Fora, competitions, and exchange visits will also be organised to facilitate exchange of experiences.

53. **Purpose 3:** Enhanced planning and implementation of cooperative and participatory management strategies for sharing natural resources, reversing ecosystem degradation, conserving biodiversity and increasing productivity to improve rural livelihoods

3.1 Public involvement in the process of planning and implementation extended to all stakeholders, and direct incentives provided for community participation in project activities

Partnerships will be developed between the public and private sectors and civil society for planning and implementing projects at catchment or community levels. Stakeholder interests will be identified and registered at all levels. A capacity-building programme will be implemented for the technical services, civil society and local communities, and multi-stakeholder fora set up for policy dialogue. Incentives will be provided for participation in project activities, in particular, by women and other vulnerable groups.

3.2 Implementation of subregional and community-based plans for conservation and shared use of water resources

Transboundary water management plans will be developed for each shared catchment and implemented through Local Bilateral Committees and local government or communities under NNJC guidance. Recommended practices for rain and flood water harvesting will be identified, tested and promoted at pilot sites. Hydraulic development schemes (abstraction, use and demand management) will be initiated where ecologically, technically and financially feasible. Critical degraded catchment sites will be selected for rehabilitation. Fishery development or conservation plans will be agreed.

3.3 Implementation of subregional and community-based plans for conservation and shared use of land resources

Bilateral protocols will be agreed on protected transboundary habitats, common biological resources, such as forests and migratory species, and plans for integrated ecosystem management in each catchment. Community-based management plans for the 24 pilot areas, including sites of special value, will be implemented. A guide on good practices for integrated ecosystem management will be prepared at the NNJC, together with economic and technical analyses of new and profitable alternatives to degrading practices. Using this information, plans for improved management of degraded resources will be prepared at community level, with NNJC technical and financial support. To reduce dependence on biological resources, testing, promotion and facilitation of alternative livelihood sources will be carried out.

3.4 Taking forward learning, experience and activities on participatory and sustainable management into Phase 2

Learning and experience from Phase 1 (building on that obtained from other projects carried out in the subregion) will be synthesised and disseminated through NNJC. This knowledge will be incorporated into the Phase 2 Workplan, which will focus on up-scaling from pilot areas to catchments and to the subregion.

4.2 Intervention Strategy and Phasing

54. The expected duration of the project is eight years, with two phases of four years each: Phase 1 for institutional strengthening, capacity building and pilot projects, and Phase 2 for out- and up-scaling across the shared catchments. The proposal for Phase two of the project will be submitted to the GEF together with the evaluation conducted at the end of Phase 1.

Phase 1.

55. Phase 1 is broken down into two sub-phases of two years. Phase 1A will be devoted to setting the conditions for project planning and implementation, as follows:

- enhancing the knowledge base
- strengthening the legal and institutional framework, including the NNJC
- strengthening planning institutions and processes
- coordinated financing
- inventorying indigenous knowledge
- identifying partners

56. Phase 1B will be devoted to participatory planning and implementation with partners, as follows:

- using new and local knowledge in planning
- harnessing indigenous knowledge and improving investment incentives
- community-based planning
- identifying and promoting good practices
- public involvement and mobilising partnerships
- water resource management plans
- integrated ecosystem management plans

- exchanging knowledge and dissemination
- taking forward learning, experience and activities into Phase 2.

Phase 2.

57. The second phase will focus on spatial out-scaling of pilot demonstrations in the four shared catchments and up-scaling of project experiences in relevant policy frameworks at both regional and national levels (based on capacity built during Phase 1). The project will adopt a flexible and adaptive management style to fully integrate and learn from experience. It will be constantly monitored and evaluated for possible amendments. The cross-cutting activities such as the information management system, pilot area experiences and demonstrations at the community level, and information and communication will continue into the second phase. Out- and up-scaling from the pilot area to the wider region will provide a critical test of the innovative methodologies of the project at larger scales than those normally associated with this type of approach.

Pilot projects.

58. In its first phase, the project will establish 24 pilot areas subject to community-based management plans (distributed among the four catchments). The designation of these areas will be left to the participatory process, via the Local Bilateral Committees and the National Project Units. Pilot areas will normally correspond to local government units, and criteria for their selection may include the following: a record of good governance as judged by both communities and Local Bilateral Committees; evidence of social capital (stakeholder associations, co-operation with government agencies, adherence to local environmental bylaws); evidence of a consensus with regard to the environmental and poverty reduction priorities of the project; representivity with regard to the catchment in question and the scaling up potential. The average size per pilot area will be about 20,000 ha. The terms of reference for the community-based management plans will be flexible (including the choice of appropriate technologies, but will include the following (Logframe activity numbers are shown in brackets).

- Local partnerships and registered stakeholder interests
- Participatory evaluations of biological resources based on local knowledge and values (2.2.1)
- Natural resource conflict prevention and management (2.3.1, 2.3.2)
- Common pool resource management (2.3.3)
- Management of degraded sites (2.3.4)
- Biodiversity conservation (2.3.5)
- Dissemination of good practices (2.4.2)
- Implementation of environmental work programmes (3.3.3)
- Identification of sustainable practices and new and profitable alternatives to unsustainable practices (3.3.4, 3.3.5)

59. At the catchment level, water resource and fishery plans will be prepared under the guidance of the Local Bilateral Committees. These may also include pilot projects. One such has already been suggested: *Transboundary water management in the Maggia-Lamido and Gada-Gulbin Maradi catchments*

60. Other suggested schemes at the Local Bilateral Committee level are: *Reclamation of degraded lands* in the Komadugu Yobe catchment (districts of Damasak and Abadan, in Nigeria, and Kantche canton, in Niger), and Tagwai-El Fadama catchment (Guskeru and Bosso cantons, in Niger, and districts of Zongo and Daura, in Nigeria).

61. In addition to integrated ecosystem management, research on good practices and demonstration will focus on the management of conflicts, pastoral enclaves, the management of fires, economic plantations, rehabilitation of lands, water management, ecological agriculture, and fuel wood-saving technologies, for which pilot sites will be identified in all catchments. The location of the sites will be defined during the project appraisal and reflected in the management plan.

SECTION 5. RISKS, SUSTAINABILITY AND REPLICABILITY

5.1 Risks

62. The political, strategic and operational conditions required for project execution, monitoring, evaluation and dissemination of results are affected by external and internal risks.

63. **External risks.**

1. Risks independent of the project framework: climatic hazards, such as drought.

2. Risks related to the project context and decision-making process:

- the environment is maintained in national priorities in both countries;
- decentralisation continues to enjoy government support;
- the two countries pursue their common efforts in the spirit of the Maiduguri Agreement;
- financing commitments are met by the two countries and donors.
- Political, legal and institutional regimes remain stable, and NNJC remains the coordinating body

64. **Internal risks.**

Internal risk assumptions include that:

- collaboration among the partners is maintained and strengthened;
- the two countries are prepared to harmonise policies and legal frameworks;
- adherence of all stakeholders to the principles of sustainable development is maintained;
- new knowledge can be effectively used;
- human resources are available for training;
- existing institutions can be strengthened and adapted;
- real transfer of responsibilities and decision-making powers takes place to the community-based organizations;
- good practices exist; they can be developed and disseminated;
- participation and benefits are found acceptable by stakeholders;
- capacity building is successful and sustainable;
- local communities remain willing to participate;
- conflicts over access to natural resources can be managed on a basis of equity;
- information and communication systems are effective.

65. The project itself will reduce some of the external risks by enhancing the resilience of managed ecosystems and by improving the hydrological functioning of the shared catchments. For example, adoption of improved and more resilient land management practices will reduce the risk of total crop failure in drought. Improved land use planning will reduce the incidence as well as impact of floods. Conflict resolution will reduce insecurity. The project will contribute to the development of an enabling policy environment through capacity building and training of institutions and key stakeholders and will thereby mitigate the internal risks.

5.2 Sustainability

66. The sustainability of the project depends mainly on (1) an ability to control risks, (2) institutional stability, and (3) the financial mechanism put in place. On the first, risks have been taken into account and minimized through project flexibility and the adoption of a participatory approach. The second has been taken into account in extensive consultations with local, technical and financial partners, as well as administrative and community partners; the coordination mechanism under the NNJC should minimise threats against the continuity of activities. Institutional sustainability will be strengthened by the capacity built at all levels from Phase 1A onwards (See Annex A). With regard to the third, consultations with partners and the financial structure selected should enable an appropriate management procedure.

67. The GEF alternative will create conditions for future sustainability by activities that address ecosystems degradation and poverty alleviation (in the first instance, in the 24 pilot areas, later in the wider community). The sustainability of the project is related to the results expected. The activities should, therefore, correspond to real interests and potential of the communities and ensure their full participation and building of their capacity. Ownership of the project and the direct involvement of local communities in project activities will be ensured by participatory planning and the integration and harnessing of indigenous knowledge.

68. Moreover, the magnitude of the existing efforts made by the two countries (Annex F 6) through the NNJC and existing regional agreements to support environmentally sound socio-economic development in the transboundary zone will contribute to future institutional sustainability. Such commitments by the countries towards execution of the project and their involvement both at the political level and at the level of the decentralized state institutions are also conducive to sustainability of the project.

69. Finally, the project, through its numerous stakeholders and its transboundary character encourages development of new lasting partnership and subregional cooperation to solve the environmental and development related problems of the transboundary area.

5.3 Replicability

70. The resources available for replication elsewhere will include the following:

Purpose 1.

- legal and institutional experience in setting up and operating new frameworks of environmental management;
- participatory planning processes involving a wide range of stakeholders;
- mechanisms for co-financing transboundary activities.

Purpose 2.

- enhanced knowledge of semi-arid ecosystems under intensive farming and grazing, available in database and GIS format;
- community-based valuations and knowledge banks on biological resources and their management, in formats suitable for applications;
- good practices for sustainable ecosystem management, guides, and experience;
- enhanced understanding of the role of indirect incentives in facilitating small-scale, private investments in sustainable natural resource management;
- experience in communication and exchange of natural resources knowledge and experience.

Purpose 3.

- procedures for increasing stakeholder participation in and commitment to conservation and community-based planning process and development of pilot area ecosystem plans;
- sustainable use of biological resources;
- plans for shared water resource development in transboundary contexts;

71. A factor conducive to replicability is the fact that improved land management practices will have been tested for both economic viability and cultural acceptability, in addition to environmental impact. Up-scaling, out-scaling and natural spread of improved land management practices will be promoted by farmer-to-farmer, community-to-community and project-to-project exchange visits.

72. Replicability will be most immediate in the transboundary zone outside the shared catchments, where (apart from an absence of shared surface water resources) ecological conditions are strongly similar. On a wider scale, the project outputs will offer replication potential throughout the Sahel, in particular in transboundary contexts, through making databases, best practices, etc. available

to other development partners and projects through internet and published materials. Such include several projects for rehabilitation of transboundary arid and semi-arid ecosystems in Fouta Djallon Highlands, Senegal and Mauritania, Niger River Basin, Lake Chad Basin, and Lake Volta Basin (UNEP/UNDP/WB/GEF). Dissemination of information and frameworks for exchange can also be accomplished under the SRAP WA/Chad (coordinated by CILSS and ECOWAS).

SECTION 6. STAKEHOLDER PARTICIPATION AND IMPLEMENTATION MODALITIES

6.1 Partners and Stakeholders

73. The principal partners in the project are: the Governments of Nigeria and Niger, acting through the Nigeria-Niger Joint Commission for Cooperation (NNJC), supported by its Permanent Technical Committee of Experts, and Local Bilateral Committees; line ministries and agencies of both governments (the Federal Ministry of Environment and Federal Ministry of Water Resources in Nigeria, and the Ministère de l'Environnement et de la Lutte contre la Désertification and Ministère de L'Eau in Niger); the decentralized technical services in-charge of environment, water resources, livestock, agriculture and fisheries; UNEP as the GEF Implementing Agency; the Global Mechanism (GM) as the Resource Mobilisation Mechanism of the UNCCD; and civil society. Also participating will be regional institutions for cooperation and development (LCBC, ABN, ECOWAS) and research centres (the regional centre of ICRISAT at Sadore) and national research institutes (INRAN, Université Abdou Moumouni au Niger). Each country has established a national steering committee that represents the Ministries of Environment, Water Resources, Agriculture, Finance and Planning and Foreign Affairs. The Ministries of Environment have a coordinating role to facilitate cross-sectoral cooperation at national level. Consultations carried out in connection with the preparation of the project have made it possible to identify cooperation and/or executing partners of the project in the two countries (Annex F 6 and Table 5.1: Partners).

74. Decentralised administrative institutions - the normal arms of local government - form a second major category of stakeholders in the project. At village level these institutions control the allocation of land and adjudicate many other issues of natural resource management. It will be important for the project to enlist the committed support of these institutions through the Local Bilateral Committees and their links with local administrations (communes, arrondissement, canton, local government authority, district, village area and hamlet heads and elders). The construction or strengthening of these linkages will be commenced at the outset (see Logframe, Component 1, Outputs 1.2 and 1.3).

75. Civil society needs to be disaggregated into its main elements: Projets, NGOs, CBOs, producers' associations, womens' associations, credit societies, fishermen's associations, etc. It is anticipated that this will be a dynamic area of activity in which new and adapted organisations will be facilitated and supported by the project, e.g. for managing common pool resources. At local level, these organisations represent discrete stakeholder interests and will play important roles in negotiations, e.g., concerning conflict management.

76. Commercial interests will be represented by traders' associations both within the catchments and outside (e.g., crop, livestock and wood fuel marketing). It is essential to incorporate these interests in order to realise the potential of the project for reconciling conservatory priorities with exploitative demands originating from urban and cross-border markets.

6.2 Core commitment and linkages and consultation, coordination and collaboration between GEF IAs and EAs

77. The project is in line with the recently developed *Land Use Management and Soil Conservation Policy of UNEP* (UNEP/GC.22/INF/25) that emphasises UNEP's role in addressing the environmental dimensions of land use management, i.e. linkages with land and soil degradation,

poverty, land tenure and public participation, environmental impact of agriculture, water management, environmental emergencies, urbanisation, global climate change, and trade and environmental externalities. In order to support governments and civil society in achieving environmental sustainability of land use, UNEP is to further develop and apply environmentally focused and development oriented policy guidance. Hence UNEP's primary goals in the medium term with regard to land use management and soil conservation are:

- Ecosystem approach for land use management and soil conservation applied and interlinkages and synergies within and across relevant sectors developed;
- Global land cover monitoring process and assessment of the state of land resources in partnership with other UN organisations and partners developed and implemented;
- Environment focused and development orientated policies on sustainable land use management and soil conservation developed and implemented through capacity building, information management and public participation, response to environmental emergencies, development of legal instruments, regional co-operation and the development, implementation and execution of GEF projects;
- Cooperation with scientific centres of excellence in order to strengthen science-policy interaction and knowledge systems through partnerships with governments and civil society;
- Further support to the implementation of the UN Convention to Combat Desertification and specific support to Africa in regard to land degradation through the NEPAD Environment Initiative (MDGs).

78. UNDP and World Bank have been extensively consulted in the project preparation process and has attended the main regional consultative workshops in the PDF B phase (see Annex E). The project will be implemented with support from the UNDP country offices in the two countries in collaboration with UNOPS. Moreover, Coordination with major river and lake basin project in West Africa implemented by UNDP and World Bank will be ensured through the existing membership of the NNJC in the NBA and the LCBC as well as in the ECOWAS/CILSS coordinated SRAP for West Africa and Chad.

79. The GM has been a supporter of the project from its inception and has provided co-financing for both the PDF A and PDF B phases and will continue to play a role in the coordination and matching of co-financing in Phase 1 and 2 of the full project. In addition, the Facilitation Committee of the GM, of which all GEF IAs and EAs involved in the Land Degradation focal area are members, will provide a forum for interagency coordination.

6.3 Organization and management of the project

80. Jointly guided by the two governments, the project will be placed under the direction of the NNJC, to ensure synergies in project activities and co-ordinated policy and decision making. Project management is not a separate component of the project, but is integrated into other components and covered by the following activities that have been budgeted for under their respective components:

1.1.4 Strengthening of institutions and processes for the management of natural resources including the prevention of conflicts.

OVI: Institutions strengthened (NNJC, LBCs) or put in place (RTC, NTC, NPUs); participatory procedures in place linking administrative technical services, CBOs, NGOs and producers at end of phase 1A (2 years).

1.2.2 Building democratic and accountable community-based organisations for mobilising local human resources, private investments and upward initiatives

OVI: CBOs based on administrative areas, stakeholder interests, producer groups, or resource users formed in each catchment and linked to NPUs (phase 1B).

This is a reflection of the decentralised approach taken by the project at national and local levels, and the fact that the regional component will be coordinated by an existing institution. Project management cost will be 8% of the total budget, which corresponds to US\$800,000 of the GEF funding. The diagram shown in Annex 3.(Project organigramme) identifies the main project structures as well as the relationships among them.

6.4 Roles and responsibilities

UNEP

Within the framework of this project, UNEP, as an Implementing Agency of the GEF, provides co-ordination of the activities of partners, technical and scientific expertise and enhancement of regional cooperation. More specifically, UNEP will be in charge of:

- Recruitment and mobilization of experts and technical assistants in consultation with NNJC;
- Recruitment of the Project Coordinator, from one of the two countries, in consultation with the NNJC and the governments;
- Transfer of financial resources needed for execution of the project;
- Membership of the Regional Steering Committee (RSC); approval of expenditures on activities recommended by the Committee;
- Monitoring and evaluation of execution and output performance in consultation with the RTC; commissioning mid-term and final evaluations of the project;
- Ensuring co-management of funds.

UNEP will implement the project through **ICRISAT** in collaboration with the two governments and the NNJC.

GM

82. The GM will liaise with donors providing co-financing to the project and also help to ensure sustained financing of integrated ecosystem management in the shared catchments beyond the completion of the GEF project.

Governments of Niger and Nigeria (through the NNJC)

83. The two governments are responsible for the operations and management of the project, and agree to delegate their powers to the NNJC, which is mandated as follows:

- Preparing, with the agreement of both governments, a management plan for the project;
- Negotiating necessary amendments to the Memorandum of Understanding and other project documents;
- Facilitating access to relevant documentation and government support services needed for the execution of the project; Recruitment, in consultation with UNEP, of the contractual staff;
- Facilitating technical missions for follow-up and evaluation of the project, ensuring full collaboration of the agents and services involved;
- Facilitating application of the provisions contained in the Memorandum of Understanding (MoU);
- Representation on the RSC.

The Ministry in-charge of environment and of combating desertification in Niger and the Ministry in charge of combating desertification in Nigeria will coordinate the implementation of the project in each country in close collaboration with the national steering committee and NNJC.

Regional Steering Committee of the project (RSC)

84. The Regional Steering Committee (RSC) of the Project is the higher decision-making body, whose overall mandate is to decide the strategic directions and ensure effective and efficient management of the project. More specifically, it is mandated as follows:

- Approval of the project management plan (prepared by NNJC), the budget and the annual disbursement forecasts;
- Determination of the strategic direction of the project and ensuring its progress;
- Examination and approval of recommendations brought by the Regional Technical Committee (RTC) on project evaluation, and identification of solutions to the problems brought to its attention;
- Deciding and effecting any corrective actions required during the course of the project for better realization of outputs and achievement of objectives;
- Review of progress reports;
- Coordinating linkages and synergies with other existing or future projects and programmes;
- Approval of technical reports and financial audits.

85. The Regional Steering Committee (RSC) is composed of representatives of UNEP, UNDP, GM, IUCN, NBA, ICRISAT, NNJC, ECOWAS, financial partners, One representative of Local Bilateral Committees each from Niger and Nigeria, the Ministries of Environment in each government, national environmental agencies, and Environmental NGO network represented by 2 members.

86. The chairmanship of the RSC is assumed alternately by the two governments. The Secretary-General of the NNJC, supported by the Project Coordinator, will be responsible for the preparation of each meeting. The Secretariat of the NNJC shall implement co-management of funds. The RSC shall meet at least once in every year.

Regional Technical Committee (RTC) and National Technical Committees (NTCs)

87. The Regional Technical Committee (Sub-committee of RSC) is set up to strengthen the knowledge and expertise available for project implementation, operational monitoring, and dissemination of project achievements to the sectors concerned and to the communities. Its responsibilities are:

- Advising the Regional Coordinating Unit (RCU) on scientific and technical issues;
- Making recommendations to the RSC on the basis of monitoring reports, and identifying problems;
- Reviewing and following up scientific and technical recommendations in the Annual Reports;
- Supporting the RCU on operational and programming aspects;
- Raising awareness of project activities among the wider technical and scientific community.

88. There is a National Technical Committee (NTC) in each country. It will include representatives of the Ministries of Environment and Water Resources, research institutes and universities, national focal points of the three Conventions (UNCBD, UNCCD, UNFCCC), and national environmental agencies; also of other national units and local branches, the NGO networks, and administrative authorities.

89. The RTC shall be chaired alternately by national focal points (CBD, CCD, FCCC), and the Secretariat will be provided by the RCU.

90. The NTCs will meet twice a year. The Ministries in charge of Environment will provide the secretariat and also chair the meetings. One of these meetings should dovetail with the meeting of the RTC, in order to exchange and harmonise viewpoints.

Regional Co-ordination Unit (RCU)

91. This will be set up at the NNJC, under the responsibility of the Secretary-General, and directed by the Regional Project Co-ordinator. The RCU has responsibility for day-to-day management and execution of the entire project, at the administrative, technical and financial levels. It will also be the secretariat of both the RSC and RTC. Its responsibilities are detailed as follows:

- Drafting the project management plan (for approval by the RSC), and the annual work plans;
- Coordination and oversight of all administrative, financial and technical activities;
- Selection and recruitment of contractual staff, in consultation with UNEP;
- Organizing logistics and programmes for consultants' missions;
- Commissioning additional studies or analyses to enhance knowledge and project performance, as recommended by the RTC;
- Recommending to the RSC activities to be supported by the project;
- Validate, in conjunction with the RTC and monitoring and evaluation teams, the quantitative and qualitative performance indicators, and tools for updating; participate in monitoring and evaluation
- Maintain continuous contacts with all stakeholders, including local communities, government authorities and other donor agencies;
- Produce required financial, progress and technical reports;
- Conclude memorandums of understandings for collaboration with the technical services for implementation of common activities (adoption of an information management system, monitoring and evaluation system, policy reforms, etc.);
- Prepare the meetings of the Technical Monitoring Committee.

92. The RCU is composed of the Regional Project Coordinator, a Principal Technical Adviser, a Monitoring and Evaluation Officer, an Accountant, a Secretary and a Driver.

Terms of Reference for RCU Staff

- (i) **The Regional Project Coordinator (RPC):** will have the overall responsibility for the day-to-day management of the RCU and coordination of project activities. S/he will have the following specific duties:
- Be responsible for the timely coordination of the execution of the technical, policy formulation and management and financial functions of the RCU;
 - Prepare the annual meetings of RSC and RTC, synthesis of National Coordination Units and of issues / concerns for consideration of the RSC, and ensure that their decisions are implemented accordingly;
 - Prepare the agenda for the annual RSC meeting in full consultation with the RTC;
 - Prepare the annual workplan of the RCU and its budget;
 - Act as secretary to both the RSC and RTC;
 - Manage the RCU staff;
 - Represent the RCU in meetings and conferences to which RCU is invited to attend;
 - Ensure proper management of the properties of the RCU

Qualifications of the Regional Project Coordinator:

The minimum requirements for the position of a Regional Project Coordinator are 10 years of technical and managerial experience dealing with development issues. The RPC should have at least an MSc. and preferably higher degree in environmental or biological sciences (e.g. natural resource management, water resource management, rangeland science and management, participatory rural development) with a background in development work and with considerable training and experience in soil/water/land management in the Sahel in particular but in arid and semi-arid lands generally. S/he should have a good command of both English and French; and be creative and sensitive to the

demands of all the principal stakeholders, including the Governments of the two participating countries.

- (ii) **Principal Technical Adviser:** will provide both technical and administrative backup to the Regional Project Coordinator. S/he will have the following specific duties:
- Act as the Regional Project Coordinator in his/her absence;
 - Provide technical backstopping to the National Coordination Units;
 - Be in regular contact with RTC for purposes of ensuring the technical soundness of both the regional and national components of the project;
 - Participate in the identification of priority areas for community based rehabilitation and management of degraded lands, as well as in the conservation and sustainable use of shared water (and other natural) resources;
 - Assist in the design of databases and in the development of methodologies for regional and transboundary natural resource management.

The Principal Technical Adviser should be a scientist with a minimum of 10 years of experience of working in the Sahel in applied research in the general areas of environmental science or ecology. S/he will have at least an MSc or preferably a higher degree in natural resources management and applied ecology. Training and experience in soil/water/land management and biodiversity conservation in arid lands, and in particular the Sahel will be an asset. Proficiency in both English and French language is also required.

- (iii) **Monitoring & Evaluation Officer:** the Monitoring and Evaluation Officer will work under the supervision of the RPC, and will have overall responsibility of refining and implementing the project's monitoring and evaluation system. Specific responsibilities include:
- Designing and implementing national monitoring and evaluation plans;
 - Developing a project database that will help in the monitoring of the project's impact;
 - Disseminate project information;
 - Collecting feedback from the field; and
 - Compiling monitoring and evaluation report according to UNEP and ICRISAT procedures

Qualifications

This is senior position requiring an experienced person with a minimum of a Masters degree in the social sciences or related field with at least five years working experience in impact monitoring and administering action-based research in developing country context is an essential requirement.

- (iv) **Accountant** will be responsible for the management of the GEF funds for the RCU. S/he will be in charge of regular monitoring of the budget and the cash flow. S/he will also be responsible for preparation of contracts for project participants and will assist the Regional Project Coordinator in monitoring financial performance of the project. S/he will liaise the National Coordination Units in financial matters and will receive and review financial reports by the National Coordination Units. Will prepare financial reports on the project to UNEP for monitoring and reporting to the GEF Secretariat. Will perform other duties within the financial administration of the project as required. He/she will copy final reports to Fund Programme Management Officer at UNEP. Additional responsibilities include Accounting and procurement including:
- Maintain books and accounts records in accordance with GEF standards and financial guidelines; exercise budgetary control on expenditures for budget holders to remain within allocated budget; issue monthly statements of expenditures to users and interested parties; prepare monthly bank account reconciliation; prepare monthly treasury cash in flow and cash out for cash requirement on operations;

- Procurement and custodianship of assets, including (a) implementation of administrative and financial policies and procedures; (b) budget preparation and control; (c) procurement of supplies and services; (d) planning and control of logistical support activities; (e) recommending and improving administrative procedures for effectiveness and efficiency in accounting records keeping;
- Prepare books for internal and external audits; prepare response to audit observations as appropriate; ensure compliance with audit recommendations.
- Seek guidance from the Regional Project Coordinator where necessary including: (a) monitoring of MOU, MOA; (b) monitoring financial transactions with all partners. (c) liaise with bank(s).
- Ensure internal control and study control systems and procedures relating to all the functions in the accounting unit and initiate such changes as may be found necessary to improve productivity and performance
- Maintain close contacts with Country Coordination Units to exchange information to ensure coherent operation at respective locations.
- Ensure that terms and conditions in the financing agreements between partners and Regional Coordination Unit/UNEP are strictly adhered to and implemented including timely, complete and correct reports to partners.
- Will perform any other duties that may be assigned by the Regional Project Coordinator including participation in various meetings as necessary.

93. **National Coordination Unit (NCU):** The NCU is composed of the National Project Manager, Assistant Project (Site/Field) Managers, Technical Assistant, Extension Officers, Accountant, Secretary, Maintenance Officer,/Security/ Driver . The overall function of the NCU is to ensure that the project is implemented at the national level in accordance with the objectives and strategies of the project documents. Specific functions of the NCU are as follows:

Technical Functions:

- Define technical issues to be addressed in the development and implementation of activities as defined in the project document;
- Provide technical support to the Local Project Units (LPUs);
- In consultation with the LPUs and target communities, identify and prioritize capacity building and training needs in support of these communities and of project objectives. Develop a training plan;
- Organize training activities in accordance with the training plan;
- Advise the RSC and RCU of problems and constraints for which assistance is needed;
- Review existing national initiatives in community based natural resource and biodiversity management and facilitate linkages with this project;
- Maintain database on project-generated data on land degradation, biodiversity, etc. which interface with the RCU databases;

Managerial and Financial Functions:

- Ensure that all NCU resources are used efficiently in support of the project objectives and in support of the LPU for the target communities;
- Manage funds in conformity with the administrative and financial procedures of ICRISAT or UNEP as appropriate;
- Ensure that funds are advanced by ICRISAT or UNEP in a timely fashion that does not hinder the work of the LPU;
- Prepare budgeted annual work plans in lines with the guidelines provided by the RCU;
- Prepare biannual and annual technical reports in line with RCU guidelines and quarterly financial reports in line with ICRISAT guidelines;
- Work with the LPUs to develop a set of criteria/guidelines for the procurement of services, equipment and materials in support of the target communities;

- Prepare TOR, advertise and competitively award contracts for the supply of services, equipment and materials to the project and the LPU;
- Ensure that materials, technical assistance and services are provided to the LPU in efficient and timely fashion;
- Ensure that after-project sustainability concerns are addressed in the choice of technologies and in the procurement of equipment and materials;
- In close consultation with the Government, seek additional funds/resources from other donors and institutions in complement to the identified project resources;
- Coordination of project activities with government, non-government and donor organizations;
- Organise workshops, seminars and training sessions
- Participate in and provide logistical support to monitoring and evaluation missions, and the mid-term and final evaluations;

Policy

- Help determine the need for a formal legal status for the target communities as appropriate;
- Identify policy constraints to the achievement of project objectives and bring them to the attention of the Regional Coordinator and the appropriate local, regional and national government bodies ;
- Propose policy reform options as appropriate;
- In consultation with the LPUs, analyze the advantages and disadvantages of proposed policy changes coming from the RSC;
- Ensure the formulation/application of policies to address gender concerns and the rights of marginalized groups.

Terms of Reference for Project Core Staff

The **National Project Manager (NPM)** will have the overall responsibility of the day-to-day management of project activities, including the smooth implementation of the functions of NCU as specified in the above. S/he will have the following specific duties:

- Provide strategic guidance to the LPUs in the management of their respective units;
- Prepare the annual meetings of the principal stakeholders and prepare them to participate effectively at the RSC meetings;
- Prepare the annual workplan of the NCU and its budget;
- Prepare quarterly progress reports on the status of the implementation of project activities, including technical, financial and policy matters, for the consideration of the national advisory committee, RCU, ICRISAT and UNEP/GEF;
- Evaluate and present the performance of the project staff;
- Represent the NCU in meetings and conferences to which NCU is invited to attend;
- Ensure proper management of the properties of the project;
- At the end of the fourth year, develop a plan for the appropriate follow-on to the project. This may be full take-over of all relevant activities by the target communities themselves, or it may involve the planning for a subsequent phase.

Qualifications of the National Project Manager:

The minimum requirements for the position of a National Project Manager (NPM) are 8-10 years of technical and managerial experience dealing with rural/community development issues. The NPM should have at least an MSc or its equivalent in environmental sciences or related disciplines; good command of English (in the case of Nigeria) or French (in the case of Niger) and a national language; and be creative and sensitive to the demands of all the principal stakeholders at the project sites as well as relevant institutions of government; and knowledgeable about GEF, ICRISAT and UNEP procedures.

Assistant Project (Site/Field) Managers, APMs: will under the supervision of the NPM, have the overall responsibilities for the day-to-day management of the Local Project Units (LPUs), that are the framework for consultation, harmonization and supervision of the field activities of the project. S/he will ensure the proper and timely implementation of field activities of the project in their respective project areas. S/he will have at least 8-10 years of practical experience with community development with a strong background in participatory techniques and community-based approaches to development. The APMs will have managerial and leadership qualities and a minimum of Masters degree in community development, environmental sciences, applied ecology, rural development, development economics or sociology.

Technical Assistant/Extension Officers: will be based with the NCU and the LPUs respectively and will assist with technical backstopping and extension activities in the overall implementation of the project activities.

Accountant/Secretary will assist the NPM in the management of NCU. S/he will ensure that proper financial and administrative procedures are absolutely adhered to by all the project staff and field implementation organizations at the national and local levels (e.g. NGOs, CBOs and private and public sector agencies). S/he will supervise the support staff (drivers, maintenance, security, etc.). S/he will have experience in office management including financial management and accounting, word processing, Microsoft excel and lotus.

Maintenance Officer/Security/Driver will be responsible for the proper and routine maintenance of all project properties including vehicle(s) and will ensure the timely delivery and collection of messages of the project.

Local Bilateral Committees (LBCs)

93. These Committees are already established under the terms of the Maiduguri Agreement to work in conjunction with the NNJC. In relation to the project, they will:

- Supervise of the National Project Units in consultation with the RCU;
- Deal with local political or administrative issues in consultation with local government;
- Ensure cross-border equity (in relation to need) in the distribution of project resources and activities.

National Project Units (NPU)

94. The NPUs are the framework for consultation, harmonization and supervision of the field activities of the project. They are based in the departments (in Niger) and in the states (in Nigeria). They are placed under the supervision of the Prefects of Tahoua, Maradi, Zinder and Diffa Departments in Niger, and the Governors of Sokoto, Katsina, Kano, Jigawa, Yobe and Borno States in Nigeria. They include all local partners: decentralized technical service departments, NGOs, administrative authorities, CBOs and beneficiary communities.

95. To achieve the objectives of the project, the beneficiaries should have direct access to the services of the NPUs, in order to enhance their skills in the technical and management fields. The NPUs should be provided with the most efficient and least cost mechanisms for delivery of these services. The NPUs will therefore make the best use of decentralized technical and administrative services and of NGOs and CBOs. Their mandate is:

- Communication between the project (RCU) and local communities;
- Execution of field activities in partnership with local communities, and/or working with administrative authorities to pursue project objectives;

- Setting up community trust funds, and opening of accounts; provision of management support; preparation of financial reports;
- Assisting local communities in the efficient management of resources allocated by the project to local activities;
- Supporting local communities in identifying and negotiating with service providers to obtain training, services and advice;
- Reviewing periodic reports on local community-based activities, synthesizing and transmitting them to the RCU;
- Carrying out participatory data collection and diagnostic analysis together with local communities;
- Supporting or assisting missions in their area mandated by the RCU;
- Participating in monitoring and evaluation, with the RCU/RTC;
- Any other assignment entrusted by the project (RCU), subject to specific agreements.

96. **The NPUs will be supported by the project Secretariat at NNJC.** Local protocol agreements specifying mandates, roles and responsibilities between partners may be signed with the support of the NPUs. The administrative and traditional authorities will facilitate project execution within the boundaries of their authority. They shall also attend the meetings of the NTCs. Beneficiary communities shall participate in all decision making.

97. **Civil society, local administrative and technical service providers, commercial interests or associations, and stakeholders.** These formations will exercise functions and responsibilities, in relation to the project, as determined by the multi-level negotiations sponsored by the project, and as supervised by the NPUs.

SECTION 7. INCREMENTAL COSTS AND PROJECT FINANCING

7.1. Incremental Costs

98. To evaluate the baseline, field missions were carried out in the two countries. The missions made it possible not only to identify and contact the technical and financial partners, but also to evaluate the financial efforts both internal (by the countries) and external (by the cooperation partners). The baseline, therefore, covers the investments made by the two Governments and Donor Agencies; investments likely to serve as baseline to the implementation of the activities programmed for within the framework of the project.

99. The alternative scenario and the incremental cost include the total cost required to attain the objectives of the project and to assure conservation of the arid and semi-arid ecosystems of global significance as well as that of animal and plant species of the shared catchments. The incremental cost was, first of all, estimated, during the field missions, then adjusted with the national co-ordinators of the two countries. The incremental cost is given as the difference between the total cost of the alternative scenario and the cost of the on-going efforts (the baseline).

100. The co-financing includes the contributions by the two Governments, the contributions of the development partners and ongoing project financing that will directly contribute to the objectives of the project notably the support from Nigeria's Federal Government to Combating of Desertification in the Frontline States. The ongoing project financing is evaluated by projection over the duration of the project. Details of these evaluations are presented in Annex A.

101. The past and on-going efforts in the catchments are considerable, through financing of activities for conservation of biodiversity, control of desertification, management of water resources and land development. Such efforts are evaluated at approximately US\$43,000,000. The investments are, however, unevenly distributed between the catchments and the two countries (see Table below).

Catchment areas	Baseline		Total of the countries
	For Niger	For Nigeria	
Maggia Lamido	102 730	1 906 667	2 009 397
	208 572	723 333	931 905
Gada Goulbi of Maradi	131 853	27 493 333	27 625 186
	2 805 714	1 260 000	4 065 714
Tagwai El Fadama	140 814	885 067	1 025 881
	928 571	0	928 571
Komadougou Yobe	278 921	12 080 066	12 358 987
	1 438 800	380 000	1 818 800
Total (countries and partners)	6 035 975	44 728 466	50 764 441
Total of own efforts per country	654 318	42 365 133	43 019 451
Total of financing by partners	5 381 657	2 363 333	7 744 990
Notes : 102 730 : Financing by the countries : 208 572 : Financing by the Partners			

102. Existing investments that will contribute directly to the present project are evaluated at US\$7,245,000 (US\$225,000 for Niger, US\$5,825,000 for Nigeria and US\$1,195,000 for regional efforts). Thus, the incremental cost, adding together existing investments together with the additional costs, is estimated at US\$28,245,000.

7.2 Project Financing

103. The financing of the project is coming from a number of sources, i.e. GEF, the host countries and development partners. The overall cost of the project with the exclusion of PDF-A and PDF-B, is US\$28,245,000. Out of the said amount, US\$10,000,000 is expected to be GEF assistance and the rest comes from co-financing, US\$7,245,000 from ongoing projects and US\$11,000,000 from the two Governments (US\$1,000,000 from Niger and US\$3,000,000 from Nigeria) and other development partners (US\$7,000,000). Two donor consultations were organised in the PDF B phase and co-financing arrangements finalised during project appraisal.

Costs of the financing components (US dollars)

Components	Baseline	GEF	Co-finance	Total
1. Subregional integration and cooperation strategies for management of transboundary natural resources	6,175,000	2,893,800	4,500,000	7,393,800
2. Strengthened capacity to harness indigenous and research-based knowledge to support the conservation and equitable sharing of natural resources, and reduce vulnerability to environmental variability and change	3,205,000	3,241,000	8,245,000	11,486,000
3. Enhanced Planning and implementation of cooperative and participatory management strategies for sharing natural resources, reversing ecosystem degradation, conserving biodiversity and increasing productivity to improve rural livelihoods	33,620,000	3,865,200	5,500,000	9,365,200
Total	43,000,000	10,000,000	18,245,000	28,245,000

A detailed budget in UNEP Format can be found in Annex 1.

SECTION 8. MONITORING, EVALUATION AND DISSIMINATION

See Annex F.6

104. The objective of monitoring and evaluation is to assist all project participants in assessing project performance and impact, with a view to maximizing both. The objective and purposes of the project, and the list of its planned outputs, have provided the basis for this monitoring and evaluation plan. The following will be monitored:

105. **Project execution:** Internal monitoring will concentrate on management and supervision of project activities, seeking to increase the efficiency and effectiveness of project implementations. It is a continuous process, which will collect information about the execution of activities programmed in the annual, half-yearly, quarterly and monthly workplans as suggested. At the end of evaluations, proposals are made on improvements in method after comparing accomplished with programmed tasks. The evaluation will be the direct responsibility of the Regional Coordinator, under the supervision of the Project Steering Committee with the assistance of Local Units for Project Coordination. See table F.6.1 for project execution indicators.

106. **Project performance:** Internal evaluation will assess the delivery of logframe outputs, both in quantity and quality. Annual internal evaluations are carried out by the NNJC and its management and monitoring structures. These evaluations will be included in the Annual Reports submitted to the Regional Steering Committee. Annual Financial audits will be carried out by UNEP in collaboration with the Regional Coordination Unit.

107. External mid-term evaluations will be effected after two years of each Phase, and external final evaluations at the end of each Phase of 4 years. These will be commissioned from external consultants by UNEP in consultation with the Regional Steering Committee. These evaluations will be preceded by annual technical audits that will serve as basis. The project performance indicators are shown in table F.6.2 and table F6.6.

108. **Impact evaluation:** Indicators of project impact will be applied at the project, catchment, and community levels. Evaluation will be carried out internally by the Monitoring and Evaluation Unit. Key indicators will reflect:

- (1) Status of natural ecosystems, their conservation and capacity for production of goods and services;
- (2) Evidence of positive changes in the management and use of biodiversity and natural resources, and
- (3) Improvements in productivity and reduction of poverty.

109. The schedule for impact evaluation is given in table F.6.3, and the distribution of M & E responsibilities in table F.6.4. Reports are listed in table F.6.5.

SECTION 9. PROJECT BUDGETING AND FINANCING

9.1 Items to be financed by Project Activities

The requested Project Grant will be used to implement the three project components outlined above, which are eligible for GEF financing. The activities outlined above will cost an estimated US \$ 10 million, of which the GEF will release US \$ 5 million for implementation of Phase 1 and subsequently US \$ 5 million for implementation of Phase 2. The present request is for GEF to release US \$ 5 million for the implementation of Phase 1.

9.2 Budget

A detailed budget in UNEP format can be found in Annex 1 of this document.

9.3 Cash Advance Requirements

An initial cash advance of **US\$.....** will be made upon signature of the project document by both parties and will cover expenditures expected to be incurred by ICRISAT during the first six months of the project execution. Subsequent advances will be made half-yearly, subject to:

(i) Confirmation by ICRISAT at least two weeks before the payment is due, that the expected rate of expenditure and actual cash position necessitate the payment, including a reasonable amount to cover “lead time” for the next remittance (see format of request in Annex 5a)

(ii) The presentation of:

- A satisfactory financial report showing expenditures incurred so far (see format in Annex 5b).
- Timely and satisfactory reports on project implementation.

9.4 Work Plan and Time Table

A detailed work plan and timetable can be found in Annex 2.

9.5 Correspondence

All correspondence regarding substantive and technical matters should be sent to:

At: ICRISAT

Dr. Saidou Koala
Global Coordinator
Desert Margins Program (DMP)
ICRISAT-Niamey
B.P. 12404, NIAMEY (NIGER)
Tel(227)722626/722529/722725
Fax(227)734329
Email: s.koala@cgiar.org

At UNEP:

Mr. Mohamed Sessay
Programme Officer
UNEP Division of GEF Coordination
P.O. Box 30552
Nairobi, Kenya
Telephone: (+254) 20 624294
Fax: (+254) 20 624041/624042/624617
Email: Mohamed.Sessay@unep.org

With a copy to:

Mr. Ahmed Djoghlaif
Director
Division of GEF Coordination
P. O. Box 30552

Nairobi, Kenya
Tel: (254) 20-624165
Fax: (254) 20-624041
Email: Ahmed.Djoghla@unep.org

All correspondence regarding financial and administrative matters should be addressed to:

At: ICRISAT

Mr. Moussa S Diolombi
ICRISAT-Niamey
B.P. 12404, Niamey, Niger
Tel: (227)722626/722529
Fax: (227)734329
Email: M.diolombi@cgiar.org

At UNEP:

Mr. David Hastie
Acting Chief,
Budget and Funds Management Service
UNON
P.O. Box 30552
Nairobi, Kenya
Tel: (254) 20 623637
Fax: (254) 20 623755

With a copy to:

Mr. Victor Ogbuneke
Fund Management Officer
UNEP Division of GEF Co-ordination
P.O. Box 30552
Nairobi, Kenya
Telephone: (+254) 20 623780
Fax: (+254) 20 623162
email: victor.ogbuneke@unep.org

9.6 Review & Processes

Upon completion of the project UNEP and Division of GEF Coordination will undertake an evaluation to measure the degree to which the objectives of the project have been achieved. An external review will be carried out at the end of each phase.

SECTION 11– MONITORING AND REPORTING

11.1 Half-yearly Progress Reports

Every six months, (as at 30 June, and 31 December), ICRISAT shall submit to UNEP, with a copy to UNEP Division of GEF Coordination, using the formats given in Annex 6A and Annex 6B, half yearly reports for the GEF and the UNEP on the progress in project execution, to be submitted by ICRISAT within 30 days of the end of the reporting period.

11.2 Terminal Reports

Within 60 days of the completion of the project, ICRISAT will submit to UNEP a terminal report using the format given in Annex 7.

11.3 Financial Reports

(a) Project Expenditure Accounts

(i) Details of project expenditures will be reported on a project-by-project basis, in line with project budget codes as set out in the project document, as at 31 March, 30 June, 30 September and 31 December (see Annex 5). All expenditure accounts will be dispatched to UNEP within 30 days of the end of the quarter to which they refer, certified by a duly authorised official of ICRISAT

(ii) The expenditure accounts as at 31 December, certified by a duly authorised official, should be dispatched to UNEP within 30 days, as for other quarters, but, in addition, UNEP requires that the end of year expenditure account should be reported in an opinion by a recognised firm of public accountants, which shall be dispatched to UNEP by 31 March. In particular, the auditors should be asked to report whether, in their opinion:

- Proper books of account have been maintained;
- All project expenditures are supported by vouchers and adequate documentation;
- Expenditures have been incurred in accordance with the objectives outlined in the project document.

(iii) Within 90 days of the completion of the project, UNOPS will supply UNEP with a final statement of account in the same format as for the quarterly statement, certified by a recognised firm of public accountants. If requested, ICRISAT shall facilitate an audit (by United Nations Board of Auditors and/or the Audit Service) of the accounts of the project.

(iv) Any portion of cash advances remaining unspent or uncommitted by ICRISAT on completion of the project will In the event that there is any delay in such disbursements, ICRISAT will be financially responsible for any adverse movement in the exchange rates.

(b) Cash advance accounts

A statement of advances of cash provided by UNEP should be submitted by ICRISAT half-yearly in the format shown in Annex 3.

11.4 Terms and Conditions

11.4.1 Non-Expendable Equipment

ICRISAT will maintain records of non-expendable equipment (items costing \$1,500 or more) as well as items of attraction such as pocket calculators, cameras, computers, printers, etc. purchased with UNEP funds (or with Trust Funds or Counterpart Funds administered by UNEP) and will submit an inventory of all such equipment to UNEP (following the format at Annex 4 and attached to the quarterly progress report), indicating description, serial no.(if any), date of purchase, original cost, present condition, location of each item together with the proposal for the disposal of the equipment. Non-expandable equipment purchased with funds administered by UNEP remains the property of UNEP until its disposal is authorised by UNEP, in consultation with ICRISAT. ICRISAT shall be responsible for any loss or damage to equipment purchased with UNEP funds. The proceeds from the sale of equipment, (duly authorised by UNEP) shall be credited to the accounts of UNEP, or of the appropriate Trust Fund or Counterpart Funds. ICRISAT shall attach to the terminal report mentioned

above, a final inventory of all non-expendable equipment purchased under this project following the format in Annex 4, indicating description, serial number, original cost, present condition, location and a proposal for the disposal of the said equipment. The inventory should be physically verified by a duly authorised official of ICRISAT.

11.4.2 Responsibility for Cost Overruns

Any cost overrun (expenditure in excess of the amount budgeted in each budget sub-line) shall be met by the organisation responsible of authorising the expenditure, unless written agreement has been received in advance from UNEP. In cases where UNEP has indicated its agreement to a cost overrun in a budget sub-line to another, or to increase the total cost to UNEP, a revision to the project document amending the budget should be issued by UNEP.

11.5 Claims by Third Parties against UNEP

UNOPS shall be responsible for dealing with any claims which may be brought by third parties against UNEP and its staff, and shall hold UNEP and its staff non-liaible in case of any claims or liabilities resulting from operations carried out by ICRISAT under this project document, except where it is agreed by UNOPS and UNEP that such claims or liabilities arise from gross negligence or wilful misconduct of the staff of UNEP.

11.6 Reports and Publications

All publications must be produced / published, according to UNEP publications manual with the approval of the UNEP Editorial Committee to ensure peer review of manuscripts, and distribution and marketing strategies. UNEP thereby affirms itself as copyright-holder of the said manuscript.

For publications issued with the executing agency, both the cover and the title page of the publication will carry the logo of UNEP and the title of the United Nations Environment Programme, together with that of the Executing Agency and the collaborating agencies. The Executing Agency will submit three copies of any manuscript prepared under the project for clearance prior to their publication in final form. UNEP's views on the publication and any suggestions for amendments of wording will be conveyed expeditiously to the Executing Agency, with an indication of any disclaimer or recognition which UNEP might wish to see appear in the publication.

UNEP may request ICRISAT to consider a joint impress basis. Should ICRISAT be solely responsible for publishing arrangements, UNEP will nevertheless receive 10 free copies of the published work in each of the agreed languages for its own purposes.

ANNEXES

- A1 Incremental Costs**
- A2 Incremental Cost Matrix**

- B Logical Framework**

- C1 STAP Roster Technical Review**
- C2 Response to STAP Comments**

- D Root causes**

- E Public Involvement Plan**

- F 1 Location of the Shared Catchments (Maps)**
- F 2 Biodiversity in the Shared Catchments – available on request**
- F 3 Shared Water Resources – available on request**
- F 4 Socio-economic Conditions and Resource Development – available on request**
- F 5 Individual and combined efforts of the countries – available on request**
- F 6 Monitoring and Evaluation Plan**

- F7: Integrated Ecosystem Management (IEM) Concept as Applied to Niger-Nigeria Project**

- 1: Budget in UNEP Format**
- 2: Workplan and Timetable**
- 3: Project Organigramme**
- 4: Format for UNEP Inventory of Non-expendable Equipment**
- 5a: Format for Cash Advance Statement**
- 5b: Format for Half-Yearly Project Expenditure Accounts for Supporting Organisations**
- 5c: UNEP/GEF Report on Planned Project co-financing and Actual Co-financing Received**

- 6a: Format for Half-Yearly Progress Report to the GEF**
- 6b: Format for Progress Report to UNEP**

- 7: Format for Terminal Report**

ANNEX A1: Incremental Cost

1. Broad Development Goals

Integrated and co-ordinated management of shared land and water resources in semi-arid regions is a high priority for West Africa, manifested through the Sub-Regional Action Programme (SRAP) to Combat Desertification for West Africa and Chad, where management of shared river basins and catchments is a major programme area. These areas hold the potential for future development of the otherwise water scarce Sahelian region, but currently appear to suffer especially severe environmental crises through floods, drought and associated effects on agriculture and land use. In the current project, these effects are exacerbated by the fact that the lowland semi-arid regions are geographically marginal, and linked across borders where different practices and conservation standards have pertained. Yet, at the same time, these very regions have important ecological and hydrological functions and a range of habitats and agro-ecologies with broad global interest because of the range of species, rare plants and animals, and plants adapted to harsh conditions. Global interest is also evident in using lessons from local and adapted techniques of management of land and biodiversity by ethnic communities that have inhabited these places for many centuries.

Policies for ecosystem management and sustainable development of shared water resources and semi-arid ecosystems in transboundary drylands have been few. The policy and economic environments that might acknowledge the importance of such areas and practices that may conserve the viability of the ecosystems are extremely limited, especially in the face of other seemingly intractable problems such as disease, malnutrition and livelihoods. It is accepted that land degradation is one of the major causes of loss in biodiversity and catchment degradation, through mechanisms that are poorly understood but which will involve loss of soil productivity, reduction in water availability, as well as greater exploitation by local people of the remaining vegetation and water resources.

Developing improved policies and institutions to manage shared catchments and ecosystem conservation requires targeting at a first level the scientific and technical needs for land rehabilitation and biodiversity conservation, as well as a close respect for local communities and participation in all aspects of the project cycle. A major barrier has been the lack of data on land degradation and ecosystem goods and services, and the lack of understanding of how local people have, in places, successfully managed a difficult environment while respecting the integrity of the natural resource base.

This project therefore has a primary objective in line with GEF Operational Programme 12 to establish sustainable conditions for integrated ecosystem management in the transboundary catchments between Niger and Nigeria. The two countries share four catchments along their common border and are guardians of especially important lowland basin semi-arid ecosystems, both natural and managed. However, the project fundamentally recognises that this goal cannot be met without also giving attention to the sustainable rural livelihoods of local people, their sharing in the benefits of conservation and their being intimately involved in all aspects of ecosystem management.

2. Baseline

The baseline activities relevant to the project countries are extensive with regard to land and water resources management, especially in Nigeria, and includes support to activities such as shelter belt development, agroforestry, sand dune fixation, forest reserve management, establishment of grazing reserves, wood lot plantations, drainage of water logged soils, agricultural activities, including irrigation, etc. However, most activities have been of a sectoral and fragmented nature often resulting in negative externalities, such as downstream siltation and water shortage, long term decline in soil productivity and spread of invasive alien species first introduced in sand dune fixation and wood lot schemes. There has also been limited cross-border coordination of these activities, due to a lack of information on the status and present use of the cross-border natural resources and a lack of capacity

in the Niger Nigeria Joint Commission for Cooperation, the institution mandated to implement the Maiduguri Agreement on the equitable sharing in the development, conservation and utilization of the water resources of the transboundary catchments. For the three Purposes of this project, the baseline situation for the 8-year duration of the project is as follows:

1. Subregional integration, harmonisation and cooperation in strategies for the management of transboundary natural resources

The NNJC is a sub-regional organisation in charge of management and coordination of activities in the shared catchments. Its areas of competence include: (1) statutory, legislative and institutional aspects; (2) mobilization of partners/stakeholders; (3) equitable sharing of the benefits derived from shared resources management; (4) scientific research and capacity building, and (5) stimulation of exchanges through local, regional and national consultation structures. The NNJC's ongoing efforts to implement the he Maiduguri and Sokoto Agreements as well as relevant national natural resources management policies and strategies form the baseline for this component. This amounts to approximately US\$ 6,175,000. However, without the project, the regional policy and regulatory frameworks as well as the capacity of the NNJC to implement them would remain weak.

2. Strengthened capacity to harness indigenous and research-based knowledge to support the conservation and equitable sharing of natural resources, and reduce vulnerability to environmental variability and change

Community-based approaches to conservation of natural resources (CBNRM) have been pioneered in Africa and considerable project experience gained especially around areas protected for wildlife conservation and important bird habitats, such as wetlands. This experience has not generally been extended to other aspects of the natural resource base. Existing projects that will continue to be funded through the life of this project are estimated to be worth US\$ 2,220,000, while the accumulated investment in research and knowledge generation for CBNRM is approximately US\$ 985,000.

3. Enhanced planning and implementation of cooperative and participatory management strategies for sharing natural resources, reversing ecosystem degradation, conserving biodiversity and increasing productivity to improve rural livelihoods

Strategies for sustainable land and water management and rehabilitation of degraded lands do exist in the countries involved in the project, but are not generally implemented in an integrated and coordinated manner because of lack of capacity to coordinate activities across sectors, states and borders. There is a considerable amount of donor-funded projects on land and water management, as well as considerable government support, particularly in Nigeria in the Gada Goulbi of Maradi catchment and the Komadougou Yobe catchment with the Maggia Lamido and Tagawi EL Fadama receiving relatively less support. This is estimated at US \$33,620,000. However, without GEF support these activities will continue to be fragmented and uncoordinated with a very high risk of causing negative externalities down stream and across the border.

3. Global Environmental Objective

The global benefits of the project reside in the reduction of land degradation and associated loss of ecosystem goods and services and hydrological functioning of the four shared watersheds. Land degradation in relatively sensitive semi-arid environments that lack the resilience of more humid areas has been shown to affect significantly net primary production of vegetation, including total biomass and the variety of biota. It reduces the viability of the diverse shared catchment ecologies to support species of national, regional and global importance. Similarly, it threatens adjacent ecologies. Because of the fragmentation of the four shared catchments into a plethora of managements units on both side of the border, including local administrative units, Regions and States, efforts to protect the ecology and hydrology of the shared catchments have been substantially hampered, with land and water management actions in one place causing negative impacts in another. However, national actions, where concerted, have shown the viability of conserving natural resources, thereby deriving substantial global benefits.

At Purpose level in the project logical framework (Annex B), the project will bring global benefits in the development and implementation of strategies for integrated ecosystem management in the transboundary catchments. Not only will the benefit be realised in demonstrating how such strategies may be achieved for transboundary areas that experience extremely high temporal and spatial variabilities in natural resources (climate, soil, ecosystems, water resources), but also in showing how integrated ecosystem management may protect biodiversity and land and water quality. Additionally, it is increasingly recognised in sub-Saharan Africa that the repository of expertise and ecological knowledge residing in local people may provide valuable generic lessons. It is intended that the project will bring global benefits by using this experience and extending a comparative assessment of participatory approaches to the broader goals of ecosystem management of semi-arid lands.

The global benefits, however, extend beyond ecosystem conservation *per se* to affect subregional and, especially, transboundary, co-operative actions and institutions for natural resources and conservation management. Regional integration and co-operation in ecosystem management will enhance the global value of the shared catchments and their natural resource base. It will avert the tensions and cross-border exploitation that has affected many national boundary zones in ecologically-important areas. The methods and approaches pioneered by this project will be valuable to future GEF operations in the field of land degradation control and the management of ecosystems in areas of human land use. The experiences gained will greatly facilitate the development of projects intended to conserve landscapes of outstanding importance and protect from land degradation and loss of biodiversity.

The project will also develop in-country and subregional human resource capacity to conserve globally significant ecosystems. Skills to be enhanced will include stakeholder and participatory analysis, integrated approaches to ecosystem management, and the management of transboundary catchment areas. This capacity-building is especially significant in the context of NNJC involvement in the project through its donor-co-ordination and country involvement, since the need for these skills is especially acute at subregional level.

4. Domestic Environmental Objectives

The global benefits also bring substantial domestic benefits for the countries involved in the projects, such as mitigation of erosion problems in the case study sites and the protection of agricultural production for local people.

The main domestic benefit, however, is the securing of sustainable rural livelihoods (SRL) for poorest people that live in geographically isolated and in economically marginal areas as represented by the shared catchments. Nevertheless, it is vital to note that these domestic benefits underwrite the sustainability of the global benefits. Without a secure and well-supported local population, the sustainability of the conservation and ecosystem management that is proposed by the project is at risk. Although integral to the viability of the whole project, SRL components are supported primarily by financing from the countries themselves and other donors.

5. GEF Alternative

Without the proposed GEF-funded alternative (along with other donor funds, leveraged by this project), the capacity at global and subregional levels to conserve and sustainably manage the shared catchments and their ecosystems that are susceptible to loss of land quality and biodiversity would remain very weak and undeveloped. The knowledge-base for using community approaches to natural resource management would not exist, and the realisation of local, national, regional and global benefits would be impossible.

The project will, therefore, substantially enhance the understanding of integrated ecosystem management, sustainable use and equitable sharing of benefits accruing from natural resources in the transboundary catchments through its field activities and the strengthening of regional cooperation and co-ordination, and integration and harmonization of strategies for the management of shared resources.

6. Process and Scope of Analysis

The systems boundary covers the entire catchments of Gada-Gulbin Maradi (9,787 km²), Tagwai-El Fadama (8,705 km²), Maggia-Lamido (4,138 km²) and approximately 10 percent of the Komadugu Yobe (8,000 km²). The principles for incremental cost analysis was agreed between the two countries at a series of three regional workshops held during the PDF-A and PDF- B activities of project preparation. Following the first regional workshop (July 2000), the issues were discussed within each country at National Consultative Workshops. The methodology was finalised at the second regional workshop in June 2002 and the calculations of baseline and alternative costs carried out within each country. The costs were calculated for the range of activities of the three main components of the project for 8-years – the duration of the planned GEF alternative. The baseline captures investments that the two governments and donors will be making in relevant programmes within the project areas over the duration of the project. The Alternative is the cost of the additional actions that will be required to secure the project objectives of bringing about integrated ecosystem management in the catchment areas under the jurisdiction of the NNJC. The incremental cost is the difference between the Alternative costs and the Baseline costs. A proportion of the incremental cost that GEF will provide was decided upon by the countries through a process of negotiation. The remainder of the Incremental cost is co-finance that will be raised in the form of cash and in-kind contributions from donors and the two participating governments.

7. Costs and the Incremental Cost Matrix

The incremental costs and benefits of the proposed project are summarised in the following incremental cost matrix. Baseline expenditures amount to approximately US\$43,000,000; the Alternative has been costed at US\$71,245,000. The incremental cost of the project, US\$ 28,245,000 is required to achieve the projects global environmental objectives. Of this amount, US\$ 10,000,000 (or US\$ 10,350,000 including PDF B resources) is requested for GEF support, or roughly 35% of the incremental cost. The remaining 65% (US\$18,245,000) of the cost will be coming from governments and other donors and includes in-kind contributions.

Annex A2: Baseline and Incremental Costs and Global and Domestic Environmental Benefits (in US\$)

	Baseline	Alternative	Increment
Component 1: Subregional integration and cooperation strategies for management of transboundary natural resources			
Legal and institutional framework for subregional co-ordination in the formulation and implementation of harmonized policies, the management of conflicts, and regulation of access to and benefits from natural resources, functional	Common policies and legal instruments for management of natural resources in the shared catchments exist, but are weak and poorly enforced, leading to uncoordinated and fragmented conservation and sustainable land management activities and inability to deal with common land degradation threats to globally significant ecosystems. (Government of Niger:\$125,000; Government of Nigeria: \$2,100,000;Donors: \$300,000) \$2,525,000	Improved policies and legislative instruments for management of the shared catchments result in enhanced coordination of NRM activities in the catchments and adoption of an integrated approach to ecosystem management at subregional level US\$5,732,300	Total Increment: 3,207,300 GEF Contribution: \$1,307,300 Co-finance: \$1,900,000
1.2 Strengthened subregional, catchment, and community level institutions and processes for collaboration among partners, representing interests, identifying strategies, and planning NR management or projects, operational	Weak subregional, catchment and community level institutions hampering collaboration among partners at different levels and implementation of integrated ecosystem management strategies in the catchments. Lack of understanding of the role of local institutions in NRM in the transboundary catchments (Niger: 75,000; Nigeria: 3,150,000; Donors: 350,000) \$3,575,000	Strengthened subregional, catchment and community level institutions and enhanced collaboration facilitating implementation of integrated ecosystem management strategies. Local institutions assist in land rehabilitation for integrated ecosystem management. \$6,187,500	Total Increment: 2,612,500 GEF Contribution: \$912,500 Co-finance: \$1,700,000
1.3 Co-ordinated financing of project activities between the two countries, at catchment and community level enabled and implemented	Existing investments in NRM at national level uncoordinated, fragmented and sectoral causing negative externalities. (Niger: 37,500; Nigeria: 37,500) \$75,000	Improved and sustained investment in conservation and management of natural resources in the transboundary catchments Enhanced cross-border coordination as well as intersectoral collaboration in NRM. \$1,649,000	Total Increment: 1,574,000 GEF Contribution: \$674,000 Co-finance: \$900,000
Component 2: Strengthened capacity to harness indigenous and research-based knowledge to support the conservation and equitable sharing of natural resources, and reduce vulnerability to environmental variability and change			
2.1 Research-based knowledge of the natural	Incomplete information on linkages between	Improved knowledge base on interlinkages	Total Increment:

ecosystems of the shared catchments, their past and present management, and the causes and impacts of land degradation and drought, enhanced and in use	land degradation and loss of ecosystem goods and services and hydrological functioning of the shared catchments impairs decisions on sustainable land management. (Niger: 85,000; Nigeria: 750,000; Donors: 150,000) \$985,000	between land degradation, ecosystem and catchment functioning assists planning for integrated ecosystem and sustainable land management. \$3,380,000	2,395,000 GEF Contribution: \$750,000 Co-finance: \$1,645,000
2.2 Local knowledge, values and practice, according to both economic and cultural criteria, integrated into natural resources management activities and programmes	Limited capacity to draw on and incorporate local knowledge values and practices to conserve and sustainably manage the transboundary ecosystems and catchment areas. (Niger: 50,000; Nigeria: 950,000; Donors: 60,000) \$1,680,000	Community-based management of ecosystems effective in conserving biodiversity and promoting sustainable utilisation of natural resources \$7,105,000	Total Increment: 5,425,000 GEF Contribution: \$825,000 Co-finance: \$4,600,000
2.3 Good practices for managing equitable access to, and conflicts of interest in, natural resources and their benefits, identified and promoted	Limited documentation and understanding of 'good practices' in the transboundary catchments for management of conflicts related to access to natural resources and conflict of interests. (Niger: 20,000; Nigeria: 400,000; Donors: 60,000; NGOs: 40,000) \$520,000	Good practices identified and promoted contributing to equitable access by all stakeholders to natural resources and reduction of conflicts over natural resources. Reduced pressure from resource users on strategic resources, such as water points and wetlands. \$2,912,000	Total Increment: 2,392,000 GEF Contribution: \$992,000 Co-finance: 1,400,000
2.4 Subregional mechanism for recording, exchanging and disseminating technologies, good practices and experience established	Poor access to new technologies for integrated ecosystem and sustainable land management leads to continued land degradation and loss of ecosystem goods and services and catchment functioning. (Niger: 10,000; Nigeria: 10,000) \$20,000	Improved access to new technologies contributes to the adoption of sustainable technologies that generate income and improve rural livelihoods and preserve ecosystem goods and services and restore the hydrological balance of the catchments. \$1,294,000	Total Increment: 1,274,000 GEF Contribution: \$674,000 Co-finance: \$600,000
Component 3: Enhanced planning and implementation of cooperative and participatory management strategies for sharing natural resources, reversing ecosystem degradation, conserving biodiversity and increasing productivity to improve rural livelihoods			
3.1 Public involvement in the process of planning and implementation extended to all	Community-based NRM projects exist in all catchments, but public involvement,	Enhanced sustainability of integrated ecosystem and land management activities	Total Increment: 2,341,000

<p>stakeholders, and direct incentives provided for community participation in project activities</p>	<p>particularly of local communities, NGOs and CBOs, in planning and implementation of catchment management activities is limited due to lack of incentives (Niger: 30,000; Nigeria: 1,574,633; Donors: 120,000; NGOs: 305,367)</p> <p style="text-align: center;">\$2,030,000</p>	<p>in the catchments thanks to strong ownership by all stakeholders.</p> <p>Integration of both local and global benefits in project activities through a process of negotiation between different stakeholder groups.</p> <p style="text-align: center;">\$4,371,000</p>	<p>GEF Contribution: \$791,000 Co-finance: \$1,550,000</p>
<p>3.2 Implementation of subregional and community-based plans for conservation and shared use of water resources</p>	<p>Large investments at national level in water resources management, such as irrigation, water harvesting, etc. exist. But coordination of water resources use and management across borders and between States is limited. Community involvement in planning process remains low. This has lead to an inequitable distribution of water resources and impaired hydrological functioning of the catchments.</p> <p>Irrigation schemes are causing off site impacts on ecosystems and land resources. (Niger: 81,818; Nigeria: 13,068,000; Donors: 1,900,182)</p> <p style="text-align: center;">\$15,050,000</p>	<p>Development and implementation of tranboundary water management plans for each catchment that will lead to a more equitable sharing of water resources across catchments and between communities that will restore the functioning of the catchments and the globally and regioanlly significant ecosystems they support.</p> <p style="text-align: center;">17,297,500</p>	<p>Total Increment: 2,247,500 GEF Contribution: \$997,500 Co-finance: \$1,250,000</p>
<p>3.3 Implementation of subregional and community-based plans for conservation and shared use of land resources</p>	<p>Protected areas and forest reserves on both sides of the border are fragmented and common habitats are not managed in a coordinated manner.</p> <p>Large investments in land management, such as shelter belt development, sand dune fixation, agroforestry, rehabilitation of grazing areas, etc. do not adhere to the principles of integrated ecosystem management and do often use exotic species that risk becoming invasive. (Niger: 140,000; Nigeria: 14,400,000; Donors: 1,500,000; NGOs: 500,000)</p>	<p>Agreed transborder protected globally significant habitats with management plans for each catchment.</p> <p>Integration of integrated ecosystem management principles into existing land management activities in order to restore the functioning of globally significant ecosystems in the catchments.</p>	<p>Total Increment: 2,045,000 GEF Contribution: \$1,145,000 Co-finance: \$900,000</p>

	\$16,540,000	\$18,585,000	
3.4 Taking forward learning, experience and activities on participatory and sustainable management into Phase 2	0	Adoption of integrated ecosystem management approach in the four transboundary catchments in order to restore the functioning of globally and regionally significant dryland ecosystems. \$2,731,700	Total Increment: 2,731,700 GEF Contribution: \$931,700 Co-finance: \$1,800,000
OVERALL TOTAL	(Niger: 654,318; Nigeria: 36,440,133; Donors: 5,060,182; NGOs: 845,367) \$43,000,000	\$71,245,000	Total increment: \$28,245,000 GEF contribution: \$10,000,000 CO-financing: \$18,245,000

ANNEX B: Logical framework of the project

1. Objective and Outcomes

Summary	Objectively Verifiable Indicators	Means of Verification (Monitoring Focus)	Critical Assumptions and Risks
<p>Development and Environmental Objective: Establish sustainable conditions for integrated ecosystem management for improvement in the livelihoods of the local communities and preservation of globally significant ecosystems in the transboundary catchments between Nigeria and Niger</p>	<p>Local- and research-based knowledge enhanced and mobilised, through the agency of the NNJC and its subsidiary institutions, to support sustainable ecosystem management and livelihoods (Phase 1). This will lead to 10% increase in household incomes thanks to improved management of natural resources at 24 pilot sites by end of phase 1 and best practices disseminated across catchments by end of phase 2.</p> <p>Regional and community-based ecosystem management planned and implemented in 24 pilot areas (48,000 ha of degraded land rehabilitated; 4,800 km² under improved management for biodiversity conservation) (Phase 1) and up-scaled to 4 catchments comprising 30,630 km² (Phase 2) (10% of Komadugu Yobe Catchment that is shared with Lake Chad; 100% of the other catchments); 35% reduction of sedimentation rate into the shared catchments (Phase 2).</p>	<p>Assessments at end of Phases 1 and 2 show evidence of</p> <ul style="list-style-type: none"> - sustainable provision of ecosystem goods and services, including biodiversity - measurable change in conservation and sustainable management of natural resources - participatory, productive and sustainable management systems supporting enhanced livelihoods 	
<p>Project Outcomes/ Purpose:</p> <p>1. Subregional integration, harmonisation and cooperation in strategies for the management of transboundary natural resources</p> <p>2. Strengthened capacity to harness indigenous and research-based knowledge to support the conservation and equitable</p>	<p>Legal and institutional framework, planning and collaborative processes, and co-ordinated financing arrangements functional by end of Phase 1:</p> <ul style="list-style-type: none"> - Increased number of transboundary projects/interventions involving both countries - Increased financing for regional collaboration in management of the shared catchments <p>Research-based and local knowledge and values integrated and applied at community level, and good practices for managing equitable access to,</p>	<p>GEF and UNEP commissioned reports</p> <p>Monitoring and evaluation reports and environmental profiles</p> <p>Research-based and participation-based databases, reports, analyses; exchange and dissemination channels</p>	<p>Financing commitments are met by the two countries and donors</p> <p>Both countries pursue their common efforts in the spirit of the Maiduguri and Abuja Agreements</p> <p>The environment is maintained as a national priority in both countries</p>

<p>sharing of natural resources, and reduce vulnerability to environmental variability and change</p> <p>3. Enhanced panning and implementation of cooperative and participatory management strategies for sharing natural resources, reversing ecosystem degradation, conserving biodiversity and increasing productivity to improve rural livelihoods</p>	<p>and benefits from, natural resources identified and promoted by end of Phase 1. Good practices in use in >50% of target communities by end of phase 2.</p> <p>Increased professional skills benefiting at least 80% of staff in participating technical services and local partners; transfer of powers to at least 80% of targeted local institutions through provision of incentives for local communities and budgetary allocations in technical services.</p> <p>Public involvement in planning and implementation effected; subregional and community-based plans for water and ecosystem management developed and implemented in 24 pilot areas. Improvement of trends in:</p> <ul style="list-style-type: none"> - extent and composition of woody and herbaceous cover - land productivity - water quality and quantity in the shared catchments 	<p>active</p> <p>Records of agreements, meetings, attendance registers</p> <p>Monitoring and evaluation reports</p>	
---	---	---	--

2. Outputs and Results

Component 1: Subregional integration and cooperation strategies for management of transboundary natural resources			
Outputs/Results	Objectively verifiable indicators	Means of verification	Critical Assumptions and Risks
<p>1.1 Legal and institutional framework for subregional co-ordination in the formulation and implementation of harmonized policies, the management of conflicts, and regulation of access to and benefits from natural resources, functional</p>	<ul style="list-style-type: none"> • Legal instruments in place to support harmonized policies under Maiduguri and Abuja agreements by Phase 1B • NNJC capacity enhanced, Phase 1A • Local institutions in both countries collaborating, Phase 1B • Conflict management procedures strengthened, Phase 1B 	<ul style="list-style-type: none"> • Legal instruments enacted • Staff development records • Regular reports of meetings and decisions 	<ul style="list-style-type: none"> • Stable political, legal and institutional regimes in both countries

1.2 Strengthened subregional, catchment, and community level institutions and processes for collaboration among partners, representing interests, identifying strategies, and planning NR management or projects, operational	<ul style="list-style-type: none"> • M.O.U. and subregional planning process in operation under NNJC, Phase 1A • Catchment and community level decisions evidence-based, Phase 1B • Local interests represented in decision chain, Phase 1 	<ul style="list-style-type: none"> • NNJC Board minutes • Records of meetings; regular reports 	<ul style="list-style-type: none"> • Real transfer of responsibilities and decision making to the CBOs and local communities takes place
1.3 Co-ordinated financing of project activities between the two countries, at catchment and community level enabled and implemented	<ul style="list-style-type: none"> • A bilateral financial protocol agreed and operating at the NNJC, Phase 1A • New partnerships developed, 1A • Financial capacity building, 1A • Links with local governments, catchments and communities developed, Phase 1B 	<ul style="list-style-type: none"> • Protocol and partnership contracts • Financial records of mobilisation and transfers of funds, including to local level, from Phase 1 • Audits, reports 	<ul style="list-style-type: none"> • Availability of international partners • Human resources available for training

Component 2: Strengthened capacity to harness indigenous and research-based knowledge to support the conservation and equitable sharing of natural resources, and reduce vulnerability to environmental variability and change			
Outputs/Results	Objectively verifiable indicators	Means of verification	Critical Assumptions and Risks
2.1 Research-based knowledge of the natural ecosystems of the shared catchments, their past and present management, and the causes and impacts of land degradation and drought, enhanced and in use	<ul style="list-style-type: none"> • Available, functional, and credible databases on shared catchments initiated, by end of Phase 1, developed through Phase 2 • A drought forecasting capability, Phase 1A • GIS capability in place at NNJC, 1A • Project impact indicators identified, and in use for M & E, Phase 1A 	<ul style="list-style-type: none"> • Databases for 4 catchments • Drought forecasting outputs • GIS outputs • Maps to support analyses 	<ul style="list-style-type: none"> • Collaboration among the partners is maintained and strengthened • New knowledge can be effectively used
2.2 Local knowledge, values and practice, according to both economic and cultural criteria, integrated into natural resources management activities and programmes	<ul style="list-style-type: none"> • 24 participatory evaluations of ecosystem services, supported by evidence of contribution to livelihoods and cultural practices, on record by end of Phase 1 • Cultural values respected in project decisions, from Phase 1A 	<ul style="list-style-type: none"> • Records of participatory activities; analytical reports • Inventories of cultural values • Records of planning meetings at all levels • Analytical study; records of meetings and plans 	<ul style="list-style-type: none"> • An integrated assessment can be achieved

	<ul style="list-style-type: none"> • Indirect incentives for natural resource management taken into account in policy decisions, from Phase 1B 		
2.3 Good practices for managing equitable access to, and conflicts of interest in, natural resources and their benefits, identified and promoted	<ul style="list-style-type: none"> • Community institutions (based on local consensus) for the equitable management of conflicts of interest operational, Phase 1 • Conflicts of interest successfully managed or resolved, Phase 1B • Equitable access to CPRs strengthened, Phases 1 and 2 • 24 management plans for degraded land and conservation of biological resources agreed, Phase 1B 	<ul style="list-style-type: none"> • Reports of meetings and decisions • Case reports or local court records • Follow-up participatory assessment of equity issues • Community management plans 	<ul style="list-style-type: none"> • Existing institutions can be strengthened/adapted • Good practices exist, they can be developed and disseminated
2.4 Subregional mechanism for recording, exchanging and disseminating technologies, good practices and experience established	<ul style="list-style-type: none"> • Information support in place for communication and exchanges, Phase 1A, strengthened 1B • Effective dissemination channels in operation, Phase 1B • Exchange fora active • Project experiences capitalised in studies, Phase 1B 	<ul style="list-style-type: none"> • Database and user records; reports, publications • M & E reports on dissemination of good practices • Records of exchange for a • Analytical reports 	<ul style="list-style-type: none"> • Good practices exist and are developed, credible programme for environmental communication, favourable legal framework, popular and academic activities

Component 3:

Enhanced planning and implementation of cooperative and participatory management strategies for sharing natural resources, reversing ecosystem degradation, conserving biodiversity and increasing productivity to improve rural livelihoods

Outputs/Results	Objectively verifiable indicators	Means of verification	Critical Assumptions and Risks
3.1 Public involvement in the process of planning and implementation extended to all stakeholders, and direct incentives provided for community participation in project activities	<ul style="list-style-type: none"> • Public-private partnerships (incl. communities, decentralized technical services, CBOs and NGOs) effective in 4 catchments, Phase 1 • Stakeholder interests identified and registered in 24 pilot areas, 1A • Capacity building for local partners 	<ul style="list-style-type: none"> • Evaluation reports on partnerships • Registers; records of decisions • Training course records • M & E reports on participation 	<ul style="list-style-type: none"> • Capacities of bilateral, national and local structures have been built and are functioning

	<p>effected, Phase 1</p> <ul style="list-style-type: none"> • Local participation in 24 management plans (incl. physical, material, financial cost sharing) Phases 1B and 2 • Participation by women and other vulnerable groups 		
3.2 Implementation of subregional and community-based plans for conservation and shared use of water resources	<ul style="list-style-type: none"> • Transboundary water management plans, Phase 1B • Hydraulic development schemes to initiated where ecologically, technically and financially feasible to restore natural hydrological balance and ensure equitable sharing of water resources, Phase 1B • Good practices promoted in 24 pilot areas, 1B • Revegetation of eroded sites in 4 catchments, 1B • Fishery development/ conservation plans in 4 catchments 	<ul style="list-style-type: none"> • Agreed texts for 4 catchments • Board meeting records • Published plans, implementation reports • Promotion activity reports and records of uptake • Site surveys • Plans 	<ul style="list-style-type: none"> • Transboundary priorities maintained and financed by cooperation partners
3.3 Implementation of subregional and community-based plans for conservation and shared use of land resources	<ul style="list-style-type: none"> • Bilateral protocols agreed, 1A; priority habitats protected as part of transboundary ecosystem management plans in 4 catchments, Phase 1B • Community-based management plans in 24 pilot areas for conservation and management of habitats and biodiversity, 1B • Reduction in unsustainable practices, observable by Phase 1B • Sustainable natural resource practices promoted, 1B • New and profitable technologies tested, evaluated by communities, 1B 	<ul style="list-style-type: none"> • Agreed texts for 4 catchments • Progress and M & E reports on protection measures, community management plans • Surveys and records of community discussions • Records of meetings, decisions 	<ul style="list-style-type: none"> • Adherence of the countries, States/Department, Districts and communities to the principles of integrated ecosystem management

3.4 Taking forward learning, experience and activities on participatory and sustainable management into Phase 2	Learning from experience of this and previous projects synthesised and applied in Phase 2 Workplan Up-scaling from pilot areas to catchments and region in Phase 2	Analytical fora and report Workplan for Phase 2	Phase 2 funding is secured
---	---	--	----------------------------

3. Activities

Component 1:

Subregional integration, harmonisation and cooperation in strategies for the management of transboundary natural resources

1.1 *Legal and institutional framework for subregional co-ordination in the formulation and implementation of harmonized policies, the management of conflicts, and regulation of access to and benefits from natural resources, functional*

Activities	Objectively verifiable indicators	Means of verification	Critical assumptions and risks
<p>1.1.1 Review and harmonisation of relevant legal instruments and regulations in the two countries</p> <p>1.1.2 Examination of the Maiduguri/Sokoto and Abuja Agreements with regard to biodiversity conservation, integrated ecosystem management and equitable sharing of benefits, and necessary steps taken to realise its potential and/or revise</p> <p>1.1.3 Institutional evaluation of NNJC: identification of strengths, weaknesses and needs; preparation and implementation of a development plan, including a capacity building programme</p> <p>1.1.4 Strengthening of institutions and processes for the management of natural resources including the prevention of conflict</p>	<p>1.1.1 Review and recommendations published; steps taken through political channels towards necessary reforms, Phase 1A; functional, Phase 2</p> <p>1.1.2 Review and recommendations published; steps taken through political channels towards necessary reforms, Phase 1A; functional, Phase 2</p> <p>1.1.3 Review and recommendations published; plan agreed by stakeholders; capacity building measures in place, 1A</p> <p>1.1.4 Diagnostic study, Phase 1A; institutions strengthened (NNJC, LBCs) or put in place (RTC, NTC, NPUs); participatory procedures in place linking administrative, technical services, CBOs, NGOs, producers etc., 1A Reduction in conflicts by end of Phase 2</p>	<p>1.1.1 Annual reports; records of political process</p> <p>1.1.2 Annual reports; records of political process</p> <p>1.1.3 Report and development plan submitted to governments; budget for development and capacity building</p> <p>1.1.4 Analytical and annual reports; meetings at all levels initiated and on record</p> <p>Court records, survey</p>	<ul style="list-style-type: none"> The two countries are prepared to harmonize policies and legal frameworks for the transboundary catchments <p>NNJC is maintained as the co-ordinating body.</p>

1.2 Strengthened subregional, catchment, and community level institutions and processes for collaboration among partners, representing interests, identifying strategies, and planning NR management or projects, operational			
<p>1.2.1 Development of Memorandum of Understanding between the Partners</p> <p>1.2.2 Building democratic and accountable community-based organisations for mobilising local human resources, private investments, and upward initiatives</p> <p>1.2.3 Decision chain agreed; structure and process for identifying and implementing project activities at subregional, catchment and community levels in place</p> <p>1.2.4 Application of improved knowledge of natural ecosystems, their past and present management, and of causes and impact of degradation improved</p> <p>1.2.5 Agreements on transborder transhumance routes, facilities and access to water and grazing strengthened</p>	<p>1.2.1 M.O.U. implemented, Phase 1A</p> <p>1.2.2 CBOs based on administrative areas (e.g., <i>canton</i>, village area), stakeholder interests (e.g., grain banks, womens' livestock groups), producer groups (e.g., farmer-traders), or resource users (e.g., fishing cooperatives, common pool forests) formed in each catchment and linked to NPUs, 1B</p> <p>1.2.3 Institutional responsibilities and procedures published; activities commenced, 1A</p> <p>1.2.4 Databases established at NNJC; regular fora initiated for exchanging experience; channels created for knowledge inputs to evidence-based decision making at all levels, 1B</p> <p>1.2.5 Stakeholder negotiations at local level; formal agreements, 1B</p>	<p>1.2.1 M.O.U. document</p> <p>1.2.2 Records of NPUs, CBOs</p> <p>1.2.3 Publication at NNJC and local levels and in local languages</p> <p>1.2.4 Records of decisions at NNJC and NPU levels</p> <p>1.2.5 Records of meetings; texts of agreements</p>	<ul style="list-style-type: none"> • Media support and exchanges exist • Continued interest of all stakeholders <p>Preparedness of partners of the two countries to combine their efforts</p>
1.3. Co-ordinated financing of project activities between the two countries, at catchment and community level enabled and implemented			
<p>1.3.1 Development of a common fund and financial protocol to evaluate needs and manage financial allocations, manage partners' interests</p> <p>1.3.2 Capacity building for financial administration at subregional, catchment and community levels</p> <p>1.3.3. Procedures and capacity for</p>	<p>1.3.1 Common Fund and administrative protocol agreed and in place, Phase 1A</p> <p>1.3.2 Trained staff in place at NNJC; local capacity building courses in Niger, Nigeria and bilateral, 1A</p>	<p>1.3.1 Annual reports; audits and management reports</p> <p>1.3.2 Annual Reports; course records</p>	<p>Adequate funds available and disbursed effectively and efficiently</p>

preparing and submitting pilot projects for financing in place	1.3.3 Financial procedures and know-how tested and operational on 2 pilot projects, 1B	1.3.3 Internal reports, staff registers, procedural protocols	
--	--	---	--

Component 2:			
Strengthened capacity to harness indigenous and research-based knowledge to support the conservation and equitable sharing of natural resources, and reduce vulnerability to environmental variability and change			
<i>2.1 Research-based knowledge of the natural ecosystems of the shared catchments, their past and present management, and the causes and impacts of land degradation and drought, enhanced and in use</i>			
	Activities	Objectively verifiable indicators	Means of verification
	2.1.1 Inventory and mapping of biodiversity, land and water resources and use	2.1.1 Inventories and maps for 4 catchments (30,630 km ²) set up and in use, Phase 1A	2.1.1 Database initiated; registers of users
	2.1.2 Analysis of population, livestock, and land use dynamics	2.1.2 Population-livestock-land use linkages and dynamics quantified and understood (12.4 m people, 6.2 m TLU/UBT), 1A	2.1.2 Analytical report
	2.1.3 Hydrological analyses and modeling of the catchments	2.1.3 Hydrological balances, behaviour and potential quantified, modelled and understood 1A	2.1.3 Analytical report by Yr 2
	2.1.4 Drought occurrence, impact analysis, and prediction modeling	2.1.4 Drought forecasting potential, including impact assessments, initiated, 1A	2.1.4 Early warning system operational
	2.1.5 Establishment/strengthening of GIS capability in the NNJC	2.1.5 GIS capability and human resource provided at NNJC, 1A	2.1.5 GIS technology, reports, maps; staff under training
	2.1.6 Identification of biophysical and socio-economic indicators of project impact agreed and in use	2.1.6 Impact indicators, monitoring system initiated, 1A	2.1.6 Monitoring and Evaluation reports
<i>2.2 Local knowledge and values of ecosystem services, including biodiversity, according to both economic and cultural criteria, integrated into natural resources management activities and programmes</i>			
	2.2.1 Community-based valuations of biological resources, using economic and cultural criteria, synthesised and stakeholder interests and implications for	2.2.1 Participatory surveys in 24 pilot areas representing 4 catchments; local biodiversity conservation strategies and guides developed, Phase 1	2.2.1 Records from surveys and of field meetings; analytical reports; publications
			Presence of biological diversity is valued locally

<p>planning project activities understood</p> <p>2.2.2 Incorporation of local values and knowledge into project databases</p> <p>2.2.3 Use of local knowledge and values in planning and programme activities improved</p> <p>2.2.4 Indirect incentives for small-scale private investments (savings, labour, skills) in sustainable natural resource management strengthened through subregional and project policies</p>	<p>2.2.2 Database at NNJC incorporates local knowledge and values for 4 catchments, user-friendly format, 1A</p> <p>2.2.3 Information channels and guides created for evidence-based decision making at all levels, 1B</p> <p>2.2.4 Review of indirect incentives (e.g., prices, market access, information diffusion, resource tenure, regulatory frameworks) completed by NNJC in both countries, discussed by LBCs, and strategies for strengthening agreed, 1B</p>	<p>2.2.2 Database; users' register</p> <p>2.2.3 Records of decisions at all levels; follow-up surveys of local peoples' confidence in process</p> <p>2.2.4 Review published; records of LBCs and RSC decisions</p>	
<p>2.3. Good practices for managing equitable access to, and conflicts of interest in, natural resources and their benefits, identified and promoted</p>			
<p>2.3.1 Building local consensus on equity in access to and benefits from sustainable management of natural resources</p> <p>2.3.2 Strengthening of local institutions for equitable management of conflicts of interest, consultation, consensus</p> <p>2.3.3 Strengthening of local institutions for equitable management of access to common pool resources</p> <p>2.3.4 Community-based plans for improved management of degraded resources or areas prepared and initiated</p> <p>2.3.5 Community-based plans for biodiversity conservation and tree planting and protection on woodlots or farms</p>	<p>2.3.1 Participatory stakeholder consensus strengthened in 24 pilot areas, 1B</p> <p>2.3.2 Conflicts of interest successfully managed or resolved in 24 pilot areas</p> <p>2.3.3 Stakeholder negotiations on access to and benefits from common pool resources; negotiated management plans for key resources at community level, approved by NPUs; 24 pilot areas in operation</p> <p>2.3.4 Management plans agreed with stakeholders and implementation commenced in 24 pilot areas, 1B</p> <p>2.3.5 Plans agreed with stakeholders and private actions initiated in 24 pilot areas, Phase 1B</p>	<p>2.3.1 Negotiation records, NPU records, Annual reports</p> <p>2.3.2 Case records in each NPU area</p> <p>2.3.3 NPU records</p> <p>2.3.4 NPU records</p> <p>2.3.5 NPU records, survey counts</p>	<p>Negotiations can proceed on the basis of consensus with regard to equity and conflict resolution</p>
<p>2.4 Subregional mechanism for recording, exchanging and disseminating technologies, good practices and experience established</p>			
<p>2.4.1 Establishment of a database on</p>	<p>2.4.1 Design and preparation of</p>	<p>2.4.1 Database initiated in Phase 1A;</p>	<p>• Budget, planning, programmes and</p>

<p>good practices at the NNJC, supported by a resource centre on sustainable and productive management of natural resources</p> <p>2.4.2 Dissemination through bulletins, information, guides, technical support of partners, fora to exchange experiences, knowledge and know-how, all supported by a web site</p> <p>2.4.3 Capitalisation of project experience in natural resource conservation at catchment and regional levels</p>	<p>information support for communication and exchanges; ongoing learning capacity, 1B</p> <p>2.4.2 Regular bulletins, good practice guides (in Hausa, French, English), and other publications available; web site set up; radio programmes (local languages); communication fora functioning in 24 pilot communities; good practices in use in > 50% of communities, 1B</p> <p>2.4.3 Commissioned studies and syntheses reflecting experience in each catchment and in each country, with overall synthesis, 1B</p>	<p>resource centre functional by Phase 1B</p> <p>2.4.2 Dissemination media; records of use and uptake from catchment level to web site; monitoring and evaluation reports</p> <p>2.4.3 8 country-catchment documents, 4 catchment level syntheses, 1 overall synthesis</p>	<p>capabilities of NNJCC and collaborating institutions are sufficient, well managed and appropriately staffed</p> <ul style="list-style-type: none"> • No major constraints to inter-country communication • Local communities willing to participate
---	---	--	--

<p>Component 3: Enhanced planning and implementation of cooperative and participatory management strategies for sharing natural resources, reversing ecosystem degradation, conserving biodiversity and increasing productivity to improve rural livelihoods</p>			
<p><i>3.1 Public involvement in the process of planning and implementation extended to all stakeholders, and direct incentives provided for community participation in project activities</i></p>			
<p>3.1.1 Development of partnerships between the public and private sectors and civil society</p> <p>3.1.2 Other stakeholder interests identified and dialogue initiated at all levels in multi-stakeholder policy fora</p> <p>3.1.3 Development and implementation of a capacity-building programme for the technical services and local partners</p> <p>3.1.4 Effective participation in community management plans of all stakeholders (including women and other vulnerable groups), through provision of direct incentives (financial, tours,</p>	<p>3.1.1 Agreements concluded with Partners (at least 8, @ 2/country/catchment) , Phase 1A</p> <p>3.1.2 Stakeholder interests registered; dialogue initiated, Phase 1A</p> <p>3.1.3 Increased professional skills; transfer of powers to local institutions, 1B</p> <p>3.1.4 Improved financial benefits to all stakeholders, including women and other vulnerable groups; annual shows to promote technologies, 1B</p>	<p>3.1.1 Partnership Agreements</p> <p>3.1.2 Registers; records of meetings at all levels</p> <p>3.1.3 Staff records and records of meetings</p> <p>3.1.4 Reports, impact evaluations at NPU level, evaluations of stakeholder participation</p>	<p>Effective transfer of powers and decision-making to grass-roots.</p>

competitions)			
3.2 Implementation of subregional and community-based plans for conservation and shared use of water resources			
<p>3.2.1 Development and initiation of transboundary water management plans for each catchment (including data collection)</p> <p>3.2.2 Feasibility studies of hydraulic development schemes (abstraction, utilization and demand management) carried out (including transfer from the Jibya Dam to irrigated land in Nigeria and Niger)</p> <p>3.2.3 Schemes initiated within the scope of the Water Management Plans, and where ecologically, technically and financially feasible</p> <p>3.2.4 Good practices (rain/flood water harvesting and other conservation measures) identified, promoted, and implemented where appropriate</p> <p>3.2.5 Re-vegetation of catchment surfaces at risk from erosion</p> <p>3.2.6 Fishery development plans agreed for each catchment, and potential for breeding, enhanced production, and producers' organisations strengthened or initiated</p>	<p>3.2.1 Plans agreed at NNJC and NPU levels and acted on, Phase 1B</p> <p>3.2.2 Studies carried out, 1A</p> <p>3.2.3 Scheme(s) developed and initiated in each catchment, 1B</p> <p>3.2.4 Good practices experimented, tested and adopted (at least 5 in each pilot area), manuals prepared in Hausa, French, English, 1B</p> <p>3.2.5 Plantation, reservation or seeding carried out on pilot sites (2 per country/catchment)</p> <p>3.2.6 Bilateral plans for 4 catchments agreed by NPUs; experimental breeding ponds established in each catchment; producers' organisations in place, end of Phase 1</p>	<p>3.2.1 Published plans approved by RSC</p> <p>3.2.2 Studies and reports</p> <p>3.2.3 Implementation reports</p> <p>3.2.4 Manuals published; reports on uptake</p> <p>3.2.5 NPU records; monitoring</p> <p>3.2.6 NPU records</p>	<p>National priorities retained and supported by development partners</p>
3.3 Implementation of subregional and community-based plans for conservation and shared use of land resources			
<p>3.3.1 Bilateral protocols, initiation of regulatory measures for the conservation of common habitats and biodiversity (including reserved forests, protected species and trade in natural products)</p>	<p>3.3.1 Agreed Protocol in Phase 1A; at least 1 trans-border protected habitat per catchment with management plan approved by NPUs, 1B</p>	<p>3.3.1 Protocol; implementation reports; management plan</p>	<ul style="list-style-type: none"> • National priorities maintained and supported by development partners. • Cooperation at local level maintained

<p>3.3.2 Development of Catchment Management Plans for ecosystem management, and initiation of implementation through community-based plans</p> <p>3.3.3 Community-based Management Plans developed within the above framework in partnership with local communities, developed and initiated.</p> <p>3.3.4 Community-based surveys of known and available practices for sustainable management of natural resources on common or private land; Synthesis prepared</p> <p>3.3.5 Identification of new and profitable alternatives for sustainable natural resources management and sustainable livelihoods identified, tested and evaluated; preparation of a guide on good practices for dissemination; testing and promotion initiated</p>	<p>3.3.2 Plans agreed at NNJC and NPU levels in Phase 1A and implemented, Phase 1B</p> <p>3.3.3 Local consensus reached on priorities and participation; plans for 24 pilot communities approved by NPUs, Phase 1A; work programmes in operation in pilot areas, Phase 1B. Indicators appropriate to the techniques adopted (at least 1 scheme per pilot area): (1) community-based and private on-farm tree plantations, with nurseries; (2) windbreaks; (3) pasture enclosure and re-seeding; (4) wind or water erosion control</p> <p>3.3.4 Inventories and evaluations of practices compiled in 24 pilot areas, and added to the NNJC database, 1B Synthesis document published in Hausa, French, English</p> <p>3.3.5 Participatory evaluations in 24 pilot sites, Phase 1A. Indicators appropriate to available technologies which include: (1) improved soil fertility management; (2) improved crops and varieties; (3) livestock nutrition and health; (4) energy-efficient cookers (5) bee-keeping and producers' groups; (6) farming endangered species. Guide published in Hausa, French, English, Phase 1B.</p>	<p>3.3.2 Management plans, implementation records</p> <p>3.3.3 Plans and reports at NPU level; monitoring reports</p> <p>3.3.4 Inventories and analyses, Synthesis disseminated</p> <p>3.3.5 Inventories and analyses; published Guide; monitoring records</p>	<ul style="list-style-type: none"> • Decentralisation continues to enjoy governmental support • Continued interest of local communities and all stakeholders • Technical assistance procured
<p>3.4 Taking forward learning, experience and activities on participatory and sustainable management into Phase 2</p>			
<p>3.4.1 Using learning and experience for flexible planning and project management practice</p>	<p>3.4.1 Commissioned reviews based on M & E indicators, project performance and impact</p>	<p>3.4.1 M & E reports; Annual reports</p>	<p>Funding support continues for Phase 2</p>

<p>3.4.2 Up- and out-scaling of natural resource management planning, regulation and experience from pilot sites to whole catchments and whole transboundary zone using, e.g., community exchange visits, farmer-to-farmer training, workshops.</p>	<p>3.4.2 Work programme for Phase 2 approved by RSC and donors before end of 1B. Widespread adoption of sustainable land management practices and improved livelihood conditions by end of Phase 2.</p>	<p>3.4.2 RSC records</p>	
---	---	--------------------------	--

ANNEX C1: STAP Roster Technical Review

INTEGRATED ECOSYSTEM MANAGEMENT OF TRANSBOUNDARY AREAS BETWEEN NIGERIA AND NIGER

Reviewed by STAP member:

William Critchley

Vrije Universiteit Amsterdam

Lekerwaard 219
1824 HJ Alkmaar
The Netherlands

Tel: 3172 5645977
Fax: 31 20 4449095

19 February 2004

1. PREAMBLE

This review follows the agreed terms of reference (TOR) relating to the STAP review of the above project: 'Integrated Ecosystem Management of Transboundary Areas between Nigeria and Niger' hereafter referred to as 'the project'. The six 'key issues' are covered as well as the six 'secondary issues'. There is also a brief general introduction, and a concluding section with 'miscellaneous points' that do not fit conveniently under the main headings.

2. GENERAL COMMENTS

The project proposal forms a comprehensive and clear document, which is evidently the product of considerable intellectual and scientific input. It is well written and very closely follows a GEF path, covering all the main issues of relevance to a project to be funded under OP12. Comparing the proposal against the checklist of 'common mistakes' in the UNEP-GEF Operational Manual, there are no evident errors to be found. There is compelling transboundary logic inherent in the project - consolidating fragmented efforts to date, with the intention of improving ecosystem goods and services in an area of global significance (in terms of biodiversity). There is a good combination of institutional, technical and strategic purposes.

3. KEY ISSUES

Scientific and technical soundness

What comes through clearly in the proposal is the strong argumentation that ecosystem functions are deteriorating in the focal areas. Biodiversity loss, desertification and hydrological dysfunction are stated to be serious problems. However - while not questioning these basic assumptions - there are few data available to support these points. Rainfall is said to have diminished by 20-30% or more between the 1960s and 1990s (though has risen again since). There are also some estimations of vulnerability of species. Annex D ('Root Causes') is well written and despite being light on numbers, puts the complex arguments for ecosystem degradation powerfully. Thus it can be concluded that the project is addressing real (if as yet unquantified) problems, and will do so in a manner which treats catchments and their various bio-physical components as interdependent entities. This is a sound approach. One question which is not clearly answered is: what are the criteria for choosing the 'pilot areas' for implementation? Neither are the specific technical interventions outlined at this stage: but that flexibility may be a merit in itself. It is positive to hear that solutions will attempt to blend 'local' and 'scientific' knowledge. Two final points under this heading: first, it is observed that there will be bodies vested with technical quality control: namely Regional and National Technical Committees. Second, it is further noted that under The Development Objective (in the Logical Framework), means

of verification (MOV), there will be an assessment of ‘*evidence of sustainable provision of ecosystem goods and services....etc etc*’. This demonstrates a commitment to scientific and technical soundness.

Global Environmental Benefits

The four transboundary catchments are a considerable and strategic expanse of land comprising ‘*a mosaic of semi-arid ecosystems with biodiversity of global significance*’. While not very clearly specified, and based on various assumptions, this is probably undeniable, and need not be questioned. Thus the ‘*reduction of land degradation and associated loss of ecosystem goods and services and hydrological functioning of the 4 watersheds [catchments]*’ must logically lead to environmental benefits – which again cannot be readily quantified in the document. But that is no reason to question the claim. Because of the ecosystem approach, benefits associated hydrological functioning should come alongside those to land improvement and sustainable management of biodiversity. Nothing in the document raises suspicions about negative impacts.

GEF and OP12 Goals

The project fits clearly and explicitly within GEF and OP 12 goals. Above all it is an ecosystem based project, seeking for synergies between biodiversity, international waters and land management. There are transparent links to the NAPs and NBSAPs of each of the two countries, as well as the poverty reduction strategies of both. The project, while providing direct benefits, will also target better understanding of integrated ecosystem management, which will be a further benefit. The transboundary diagnostic analysis (TDA) within the PDF-B was used to help ensure the fit of the project within GEF/OP 12 goals. Furthermore the Global Mechanism helped fund the PDF-A and PDF-B, and the project is stated to be inline with the recently develop Land Use Management and Soil Conservation Policy of UNEP, linking human and environmental factors. Within GEF, there are evident links to OP 1, OP 9 and OP 15: this is highlighted within the proposal.

Rationale for Regional Context

There is a compelling rationale for the (sub-) regional context of the project. Both ecosystem and political reasons underpin this rationale. The four catchments simply have to be treated across boundaries, and eventually in their totalities, to gain full ecosystem benefits; crossing the country boundaries as they do, this not only requires political collaboration between the two countries, but also provides an *opportunity* for the strengthening of the Niger-Nigeria Joint Commission for Collaboration (NNJC). This in turn can deliver other desirable impacts. The Maidurugi Agreement is in place, awaiting implementation: this project provides the wherewithal for its activation. At a higher level, the project evidently fits in well with the Sub Regional Action Programme to Combat Desertification for West Africa and Chad.

Replicability of the Project

The project is foreseen within the proposal to be a first step towards ecosystem (and associated livelihood) improvement of the whole transboundary zone. This could then be the precursor for upscaling to the whole sub-region. It should be noted that the hydrological component – by definition - would not be of the same significance outside the catchments. There is a built-in ‘information support system’ that will target actors within the [sub-]region with dissemination of good practices and conflict resolution. Furthermore exchange of experience between two other national/ sub-regional projects is made explicit in the document. Replicability of the project is thus theoretically catered for in the proposal: what will be the acid test is demonstrable success of the project within its own sphere as a first step.

Sustainability

The connection between poverty alleviation and improved ecosystem function is a valid one. Nothing will ensure sustainability better than benefits accruing to the inhabitants of the region – who are at the centre of the 24 pilot areas through the community planning processes that are foreseen. Furthermore, the legal/ institutional component (purpose no 1) lays the framework for continuity at a higher level. It should be noted that the baseline level of funding under the project is very considerable: success should encourage further bi-national channeling of funds, or at least redirection towards the more

promising components of the project. Finally the fact that the project is planned for an eight year implementation phase (“4+4”) is a welcome step towards the reality of how long is required to set up and properly establish a viable process.

4. SECONDARY ISSUES

Linkage to Climate Change

There is mention in the document of the damaging impact of the reduced rainfall (1960s – 1990s) on the environment – though whether this constitutes evidence of ‘climate change’ *per se*, or merely a natural fluctuation, is a moot point. Nevertheless, on the positive side, improvements in ecosystem health will be associated with carbon sequestration, both above and below ground, with, thus, some global benefits.

Linkage to other programmes

Strong interlinkages of the project with other national, regional and pan-African programmes are written into the proposal. NEPAD’s ‘expectations are integrated’ with respect to various aspects, including the transboundary nature of the project, as well as its multisectoral dimension and ‘opportunities for subregional and local partnerships’. The Sub Regional Action Programme to Combat Desertification and Drought in West Africa and Chad ‘strengthens the institutional framework’. The most important ‘linkage’ of all – which is integral to the project’s operation – is that to NNJC’s Maiduguri Agreement (MA), where the MA is effectively the vehicle that carries the project. This is a mutually beneficial arrangement. The project brings life to the apparently moribund MA, and in turn does not require other complex agreements to be signed.

Other environmental effects

It is highly unlikely that there will be any unforeseen negative environmental impacts of the project. The expected poverty reduction in the region should ensure land users have the wherewithal and rational to improve their productive base, in other words the capability to invest in their agricultural land. That is perhaps not brought out clearly enough in the document. One other point should be mentioned here: the current environmental database is very weak. The project will facilitate better data collection (flows; degradation/ rehabilitation of land; biodiversity loss/ management etc) and this will enable improved monitoring of the environment, and enumeration of the ecosystems’ flow of goods and services.

Stakeholder involvement

Strong evidence is provided for involvement of stakeholders from grassroots (the ‘communities’), up through local, sub-national, national and sub-regional levels. What should be noted in particular is the emphasis on the ‘community-based management plans’ for the 24 pilot areas: on these plans hinge the success of the project as a whole.

Capacity building

Capacity building is proposed (see for example section 53, subsection 3.1) for various levels of personnel, without it always being clear just what capacity is to be built or within whom. Nevertheless Annex A does describe the ‘*development of in-country and subregional human resource capacity to conserve globally significant ecosystems*’. A number of particular skills are indeed listed here. It should also be noted that a project of this duration (4+4) will inevitably build capacity through hands-on experience.

Innovativeness of the project

Because of its transboundary, integrated ecosystem management ‘GEF OP 12 approach’ the project is a welcome deviation from a sector specific, area based, national project. But its real innovativeness is in the intention to tap into/ harness local knowledge (for example by assessing ‘community based valuations of biological resources’), cultural values, and to use participatory evaluation as a tool. For its size, this type of approach is quite unusual (these attributes are more normally associated with

small, NGO supported projects). This makes it a cutting edge initiative – if these intentions can be translated into reality.

5. MISCELLANEOUS POINTS

Finally there are a number of minor points/ issues raised for consideration:

- Useful perhaps to have a box noting differences between ‘pilot area’ ‘trans-boundary area’, ‘shared catchments’, ‘trans-boundary zone’ and ‘sub-region’
- Is there any indication of size and nature of ‘pilot areas/sites’? Why does mention and description of these not appear earlier in the document?
- Should the last sentence of para. 50 not be moved up to 49 (regarding development of new/ profitable technologies)? Seems to belong better there
- While the rest of section 6 (Incremental Costs) is clear, paragraph 100 is *not*. It is difficult to follow the logic, or trace all the figures to the tables
- The concept of the two phases is not sufficiently clear, nor does an explanation come early enough
- Risks: is *drought* really a ‘risk’ to the project? Surely a valid ‘challenge’?
- *Incentives* are mentioned without a clear explanation as to their meaning
- The formulation of the first clause in point (2) - under the textual introduction in the summary - does not correspond in meaning to that in the main document. A better formulation might be: *‘Harnessing indigenous knowledge and cultural values by blending them with research- based findings..... ..’*

ANNEX C2: IA Response to STAP Comments

General Comments

We agree with the reviewer that there is a compelling case for a transboundary project between Niger and Nigeria.

KEY ISSUES

Scientific and technical soundness

Environmental data: we agree the base is weak. It is possible to strengthen it, but data are scattered, difficult to access and often outdated. Moreover, few relate specifically to the transboundary zone. Purpose 2.1 will strengthen the knowledge base (Phase 1A), including data acquisition from all sources (in particular, past projects carried out in the area by overseas agencies).

Pilot areas: Pilot areas will be selected through a participatory process, which it was not possible to complete in the PDF B phase, due to the vast size of the project area and number of administrative units included. The pilot areas will normally correspond to local government units, and criteria for their selection will include the following: a record of good governance as judged by both communities and Local Bilateral Committees; evidence of social capital (stakeholder associations, co-operation with government agencies, adherence to local environmental bylaws); evidence of a consensus with regard to the environmental and poverty reduction priorities of the project; representivity with regard to the catchment in question, and potential for scaling up. An average size of around 20,000 ha is expected, but dependent on the size of local government units. Within these pilot areas, land rehabilitated from degradation will total at least 48,000 ha in Phase 1.

Global environmental benefits, Linkage to climate change

The area under improved management for biodiversity conservation has been quantified in the logical framework to around 4,800 km² in phase 1 (biodiversity benefit) and the total area of the catchment areas that form the system boundary of the project to 30,630 km² (international waters benefit). Substantial upscaling of integrated ecosystem and sustainable land management approaches to the catchment areas will not take place until Phase 2. Carbon sequestration is a secondary benefit to be generated by the project and can only be quantified once communities have adopted appropriate land management practices.

GEF and OP12 Goals

We agree.

Rationale for Regional Context

We agree.

Replicability of the Project

The project has an in-built replication mechanism, but we agree that replicability will depend on the success of the project activities in the 24 pilot areas. This is the main reason for spending time in the beginning of the project to select these areas in a participatory manner that creates strong grassroots ownership of the project.

Sustainability

We agree.

SECONDARY ISSUES

Climate change

The potential for improving carbon sequestration in the long term is considerable if the improved practices promoted by the project are successfully scaled up to the transboundary zone.

Linkage to other programmes

We agree that the institutional infrastructure for the project being already in place, the activities have a strong probability of success.

Other environmental effects

The response with regard to the database has been given above. With regard to investment capability, changes have been made to add emphasis to this theme.

Stakeholder involvement

We agree that community ‘ownership’ and effective stakeholder participation will be essential to achieving the benefits, and the project is structured accordingly.

Capacity building

We prefer to specify details in the Annex rather than in the project brief and logframe as the numbers and professional capacities required should be left for project management to decide under the supervision of the NNJC. Flexibility in this regard will be advantageous.

Innovativeness

We agree

MISCELLANEOUS POINTS

An additional diagram has not been provided to illustrate the nesting of pilot areas, catchment areas, the transboundary zone, and the region, in order not to lengthen the document further, but the geographical units include:

- *smallest* pilot area catchment transboundary zone region *largest*
- Size and nature of pilot areas has been clarified and cross-references provided
- The last sentence of para 50 has not been moved under Purpose 2 because it concerns development and planning (Purpose 3) rather than knowledge generation (Purpose 2)
- Paragraph 100 has been clarified.
- The description of phasing is placed under ‘Intervention strategy’ according to the protocol. We think the two paragraphs referred to are explicit in distinguishing the aims of each phase.
- We prefer to retain ‘risk’ as an external. To treat it as an ‘internal’ would be problematic as the project is targeted on environmental management and the control of degradation (which is institutional and technical) rather than on risk management (which is primarily economic).
- Incentives have been defined.
- The reviewer’s suggestion has been incorporated into the Summary

The following changes and considerations have been made in the project document (see reference to paragraph in Project Brief)

7 after ‘partnerships’: which will be expressed at grassroot level in the form of 24 pilot areas (see para 58)

43 after ‘region’: (see para 58)

50 after ‘24 pilot areas’: (see para 58)

51 under 1.2: ditto

52 under 2.2, 2.3: ditto

53 under 3.3: ditto

58 after ‘national project units’: Pilot areas will normally correspond to local government units, and criteria for their selection may include the following: a record of good governance as judged by both communities and Local Bilateral Committees; evidence of social capital (stakeholder associations, co-operation with government agencies, adherence to local environmental byelaws); evidence of a consensus with regard to the environmental and poverty reduction priorities of the project; representativeness with regard to the catchment in question and the scaling up potential.

58 after ‘flexible’: (including the choice of appropriate technologies)

Sustainability

67 after ‘alleviation’: (in the first instance, in the 24 pilot areas, later in the wider community)

Other environmental effects

37 after ‘management’: Such private, small-scale investments are critical to achieving sustainable management of natural resources.

see also 45, 52 (2.2)

70 Purpose 2: after ‘facilitating’: small-scale, private

Capacity building

57 after ‘national levels’: (based on capacity built during Phase 1).

66 after ‘activities’: Institutional sustainability will be strengthened by the capacity built at all levels from Phase 1A onwards (see Annex A).

Innovativeness

57 after ‘pilot’: area experience and demonstrations. . .’

57 after ‘second phase’: Out- and up-scaling from the pilot area to the wider region will provide a critical test of the innovative methodologies of the project at larger scales than those normally associated with this type of approach.

Miscellaneous

50 last sentence: *to move this to the previous section will disturb the logframe. It is placed here because the emphasis under Purpose 2 is on the use of knowledge and the emphasis under Purpose 3 is on the development and planning.*

54-57 (two phases) *We cannot see any obvious way of clarifying these paragraphs further. As for their position, this was dictated by the protocol which puts ‘intervention strategy’ here. The paragraphs give details of which logframe activities are allocated to each phase. If someone else can improve, please do so!*

63 (1) *Drought as an external risk: In fact the proposal has been written on the assumption that this is an externality. To accept it as an (internal) ‘challenge’ would be problematic because whereas the appropriate strategies against degradation are institutional and technical, those against drought are institutional and economic (risk management), which appear to fall outside the GEF remit. Actually drought is sometimes favorable to the environment if it reduces management pressure (e.g. grazing, nutrient mining) temporarily.*

37 (incentives) after ‘forms of management’: Incentives are provided either through policies which enable resource managers to make better decisions (e.g., positive changes in tenure rules), or through variables resulting from macro-economic policy (e.g., changes in input or output prices).

Summary line 6 after (2): as suggested, Harnessing indigenous knowledge and cultural values by blending them with research-based findings.

ANNEX D: ROOT CAUSES

The Sahel of West Africa has been subjected to environmental changes for several millenia owing to its location on the transition from desert to seasonal rainfall regimes, a transition which has tended to fluctuate on both long- and short-term time-scales. This has resulted in high and variable exposure to risk of drought both for its ecosystems and for the human communities who depend on them. Between the 1960s and the 1990s, all rainfall stations recorded a decline in rainfall measured in terms of 30-year averages, and this decline was in the order of 25-30%. Such oscillations of the desert edge have affected the region before. During the 1990s, while remaining highly variable, average rainfall appears to have stopped its downward tendency. However, direct linkages between global warming and rainfall in the Sahel have not been demonstrated, nor is there consensus on predictions of future change. The possibility of a local contribution to greenhouse gas emissions is reduced by the prevalence of human or animal energy in agriculture (dams, irrigation and bush fires notwithstanding) and the rarity of industrial sources. Linkages at the subregional level between land use and rainfall (e.g., through changes in surface albedo) continue to attract controversial interest among scientists.

Droughts are recurrent in the region (at least ten major episodes during the past 100 years), and have become more frequent as average rainfall has declined. The impact of drought on land degradation in the longer term is uncertain, however. Paradoxically, damaging floods also occur from time to time.

The land degradational trends that affect the shared catchments, along with other parts of the Niger-Nigeria transboundary zone, must be understood in this context. However, it is not practicable to separate the agency of natural and management factors as there are complex linkages and hypothesised feedback mechanisms. 'Desertification' theory has suffered in this respect from much over-simplification, which has not assisted efforts to develop practicable policy, institutional or technical responses. Autonomous adaptation by small farmers, stock breeders and fishers has however been vigorous, though commonly under-estimated by planners. But it is also true that environmental change has brought increased vulnerability to some households. The major sources of pressure on local systems of natural resource management may be categorised as follows:

Changing policy directions. National policies in the 1960s promoted exports at the expense of production for domestic demand, leading to dependence on subsidies and state marketing systems which proved to be financially unsustainable. Structural adjustment in the 1980s and 1990s exposed producers to weak and variable prices and increasing input costs. Incentives for investment in sustainable natural resource management were not prioritised. Recently more attention has been paid to restoring agriculture to a central place in macro-economic policy. Some government programmes had an impact on natural resource management, but others led instead to increased degradation, for example through installing hydro-agricultural infrastructures without co-ordination, destroying wetlands, and facilitating mechanisation on fragile soils. This situation resulted in part from an absence of functioning sub-regional strategies for the allocation and development of land.

Weak co-ordination and implementation of regional strategies, and harmonization of national policies, is illustrated by the facts that there is no concerted strategy for allocating land or for establishing hydro-agricultural schemes and structures. The NNJC, the institution charged with overall responsibility, is not able to live up to expectations in view of its lack of capacity (not enough technicians, no policy framework, inadequate legal support, and malfunctioning local institutions such as joint local committees).

Rapid population growth. Since the 1960s, the resident rural populations of the transboundary zone have increased by a factor of about 2.5 (in Maradi Department of Niger, at 3.5%/yr between 1977 and 1988). As food production remains a major priority – usually, the *first* priority – on family farms, the natural resource has come under increasing pressure to meet subsistence demand. Population growth is accompanied by an increase in demand for arable lands, and for woody and pastoral resources since livestock numbers have also increased. The communities, therefore, resorted to felling woodlands to meet the various demands, including those of agriculture. In Nigeria's Sahel and Sudan savannas,

about 200,000 ha of woodland were converted to other uses every year between 1976/78 and 1993/95. During the same period, the area cultivated intensively (i.e., without long fallows) in the six border states – which include the shared catchments - increased by 10%. However, at the end of the period, there was a wide variation among the states, from an increase of >75% in Jigawa, Kano and Katsina to only 14% in Borno. In Niger, the Department of Maradi recorded an increase in the cultivated fraction from 59 to 73% between 1975 and 1999.

Market growth and urbanisation. Agricultural expansion is not driven only by population growth. Markets were operating with vigour from before colonial times, but the promotion of export crop production (principally groundnuts and cotton) from the second decade of the twentieth century later incorporated almost every rural household into a global market, and increased the demand for access to productive resources. In Nigeria, one estimate has it that 300,000 ha of forest are cleared each year for market farming. Internal markets are now more important than export ones. Niger is 25% urbanised and Nigeria, more than 33%. Woodcutting is also driven by markets. Rural populations can produce their fuel requirements from trees growing on-farm, but long-distance trade in fuelwood to Kano, Niamey and other large towns is contributing to forest destruction and degradation in remaining areas of natural woodland. More than 80% of energy requirements come from wood. Plantations make only a small contribution. Timber is also used for construction and crafts.

Restricted access to land. With the possible exception of the Komadugu Yobe catchment, the ‘saturation’ of claims to agricultural land undermined the long-fallowing systems and put nomadic livestock keepers at risk. A fundamental transformation from natural to man-made landscapes is under way. The inadequate supply of free land for settlement, as households tend towards fission in each new generation, is leading to the emergence of markets in land, inflationary prices, and preferences for private rights over those of common access. Both countries have enacted land tenure reforms. In Nigeria the Land Use Act (1978) sought to bring all land under state control in order to guarantee the rights of ‘all Nigerians’ to enjoy its benefits. This did not involve fundamental change in the transboundary zone as Maliki law was already operating rules of private and heritable tenure. The powers vested in the states could, however, put at risk the security of smallholders in the vicinity of towns or development projects. In some local government areas, community-based arrangements between sedentary farmers and mobile agro-pastoralists have tended to slow or even stop the conversion of savanna pastures into farmland. In Niger, the *Code rurale* process (inspired by the principle, ‘land to the sower’) has had a destabilising effect through offering an incentive to farmers to appropriate free land, increasing the cultivated fraction rapidly, and undermining the customary grazing rights enjoyed by mobile pastoralists. Questions of security and equity are inseparable from natural resource management.

Slow technological change. Driven by a need to feed more people, sell crops or livestock to meet cash needs, by the declining yields that may follow the cessation of fallowing and an increasing scarcity of rangeland, producers are faced with a challenge to change their technologies. However new technologies, offering improved returns per hectare on a scale attractive to risk-prone producers, are scarce in the Sahel. Yet extensive production systems are becoming increasingly unsustainable as soil fertility and bioproductivity go into decline. Barriers to intensification in both crop and livestock husbandry are therefore critical.

Better use of indigenous knowledge and its hybridisation with new knowledge can help sustain productivity. For example, integrated crop-livestock systems recycle organic matter into the soil, make more efficient use of crop residues, supply farm energy, and contribute to livelihoods through the sale of animals and products. However, it is valid to question the potential of such ‘indigenous intensification’ both to bring benefit to land or households of differing quality or means, and to accomplish the quantum leap in productivity that is necessary to support significantly improved per capita incomes.

In the absence of intensification, the high population densities, poverty level, and investment barriers seem to have resulted in the continuation of land management practices that lead to environmental

degradation: the reduction of fallows, extension of farming into wetlands, commercial exploitation of timber, the restriction of rangeland and over-stocking. To these could be added the use of heavy agricultural equipment on fragile soils, though this results from inappropriate capitalisation by wealthier farmers.

The ancient practice of burning the bush is frequently condemned as, especially when carried out early in the dry season, it strips the land bare, raises its temperature, destroys the micro-organisms of the soil, reduces the fertility of the soils and destroys the organic matter. However, fire is the means of accessing land for agriculture, facilitating hunting and honey production, and provoking new growth for livestock. In Niger, it has been estimated that 14,305 ha are burnt annually. In Nigeria, more than 35,000 ha are said to be burnt annually; the catchment most affected is that of the Komadugu Yobe, with 27,000 ha burnt in 45 observed incidents. Late burning is less harmful. The regulation of burning, however, has always failed because given a shortage of labour in most systems, it was a technical foundation of the fallowing system. After the cultivation cycle, natural regeneration resumed. With the disappearance of long fallowing, burning will become less of a problem.

Another indigenous practice frequently condemned is the maintenance of high stocking levels on natural (unimproved) rangeland. Increased stocking became possible with the sinking of new wells and boreholes during the 1960s, facilitating access to pastures previously remote from water, and provoking high mortality during the Sahel Drought of 1969-74. Grazing pressure can lead to the degradation of pasture through a dwindling of palatable species and an increase in invaders, such as *Sida cordifolia*. Grazing and trampling are believed to reduce the vegetation cover around water or camps, exposing the soil to erosion. Little evidence exists that such effects are permanent; meanwhile it is now understood that stocking strategies are opportunistic rather than equilibrial, and that such strategies make economic sense. Livestock offer better returns, and product markets are buoyant in the longer term (consistently with the global 'livestock revolution'). Numbers therefore tend to recover after every drought cycle. There are significant correlations between numbers of livestock units and those of human populations, regardless of rainfall or pasture 'carrying capacity'. Owing to the increasing numbers of animals, fodder is being commercialised.

The essence of the problem with technology is, therefore, a common absence of the conditions that promote intensification: reduced risk, appropriate low-cost technologies, abundant labour, capital funds and above all, market incentives.

Increasing income diversification, often involving migration. Urbanisation, the experience of labour migration in areas of agricultural modernisation, the growth of village-based networks, the improvement of road infrastructure, the enlargement of the informal employment sector, and the impact of media, peer-group and educational exposure on personal expectations, have led to an increase in short- and longer-term migration, a trend that has coincided with a decline in opportunity in agriculture, owing to the scarcity of land, a poverty of capital, and too frequent food crises on account of drought. There are strong disincentives to rely exclusively on agriculturally based livelihoods.

Diversification is bad news for agriculture if it drains capital away from rural investment and labour from critical farming operations. Migration is frequently condemned by policy makers because of a perceived stress on urban service provision. However, there is little that either of the two governments can do to regulate it, as it represents a rational and often absolutely essential response to livelihood constraints and opportunities. Moreover the Sahelian populations have always exploited synergies between the humid and semi-arid agro-ecological zones. Much of this movement crosses the border, as the Nigerian cities are important targets for labour, skills and products from Niger. Another form of mobility, transhumance by herders, is equally essential to the efficient use of rangelands and crop residues at different seasons of the year. Given the other sources of stress, however, it is sometimes accompanied by conflicts over access to water and use of land by farmers, herders and others.

The truth, now well understood, is that complex systemic relations lie behind natural resource management. Given the productive constraints imposed by rainfall, it is no longer an option for the rural population in its entirety to depend exclusively on agriculturally-based livelihoods. The behaviour of rural people bears this out (increasing migration, income diversification). Development policy therefore confronts a strong dynamic. Neither is it sensible for policy to treat natural resource management only in a sectoral context. Structural transformation should occur as agricultural producers become a smaller proportion of total population, first relatively, later absolutely. Given the growing strength of inter-regional and inter-sectoral linkages, the objective of policy should be to discourage the mining of natural capital and to provide incentives for a flow of savings into investments in more sustainable forms of management. The decisions of resource managers assume a central place. Empowering, facilitating and supporting resource allocations at local level that both improve livelihoods and sustain the resource base calls for radical departures from older models of top-down, technically-led interventions.

ANNEX E: PUBLIC INVOLVEMENT PLAN SUMMARY

The idea for this project originated in consultations between Nigeria and Niger addressing problems of desertification control and management of shared water resources. These led to bilateral agreements, the first on shared water resources (the Maiduguri Agreement of July 1990, amended at Sokoto in 1998), and the second on conservation, resource use and development (the Abuja Agreement of 1990). A multi-lateral action programme (the Sub-regional Action Programme to Combat Desertification and Drought in West Africa and Chad, or SRAP/WA, initiated in 1994 and finalised in 1999/2000) provides an implementation framework.

In line with participatory principles, the project planning process has been carried out with the involvement of beneficiaries, stakeholders and partners. With regard to partners, UNEP has consulted with UNDP, World Bank, NNJC and the ministries in charge of the environment, water resources and control of desertification in Niger and Nigeria.

In August 1999, the two countries organised a consultative meeting with the World Bank and the Global Mechanism of the United Nations Convention for Control of Desertification (GM/CCD) to examine the prospects and modalities. At the third Conference of Parties to the CCD (COP 3, November, 1999) at Recife, Brazil, financing was agreed under PDF A for the Phase A (travel expenses and national activities) of a project entitled "Integrated Management of Land and Water Resources of the shared Catchment areas in the Cross-boundary zone of Nigeria and Niger".

In view of the importance attached by both countries to the proposal, Phase B was identified under PDF B to pursue the process thus begun. The concept note positioned the proposal under the GEF's action line «Multi-sectoral aspect of soil degradation at the level of biodiversity and international waters", with reference to the operational programmes, 1) arid and semi-arid ecosystems (OP 1), and 2) integrated ecosystem management (OP 12).

PDF A supported a workshop at Kano, Nigeria in July, 2000, to agree:

- project components for GEF subvention
- institutional partners in PDF B activities at national and subregional levels
- information sources
- linkages between PDF B activities and other studies

The 29th Session of the Council of the Ministers of the NNJC at Niamey (June, 2001) evaluated the project and confirmed in principle the participation of the technical ministries, and NNJC facilitation of the steering committee.

A concurrent workshop spelt out the modalities for implementing PDF B:

- supervision by UNEP and UNDP ;
- thematic areas to be examined by national consultants;
- co-ordinating committees to work at the national and sub-regional levels.

UNEP organised a mission in March, 2002 to identify and inform interested partners. **Diagnostic** studies were conducted at national level on themes identified at the Niamey workshop. Direct beneficiaries and actors participated in these in conjunction with the technical ministries. At the end of the exercise, validation workshops were held. In Nigeria, two were held, in January and April, 2002. They were attended by representatives of 11 border states, the technical Ministries (Environment, Water Resources, Agriculture, Plant Protection), UNDP and NGOs (Nigerian Environmental Study Team or NEST, Nigerian Conservation Foundation or NCF, and Savanna Watch).

In Niger, two regional workshops were held in September, 2002 and one national, in November, 2002. Represented at the regional workshops were: the 4 transboundary regions concerned, **CNEDD** (the policy organ for national orientation in environmental matters), the technical ministries (Environment and Desertification Control, Agricultural Development, Economy and Finance, Animal Resources, Foreign Affairs, Cooperation and African Integration), representatives of institutions (Kandadji Dam High Commission, High Commission for Decentralisation, Permanent Secretariat of the Poverty Reduction Strategy, Faculty of Agronomy, **INRAN**, Farmers's Platform), projects (**PGRN**, **PAFN**), **DAP/PNEDD**), and NGOs (**GAP**, **CONGAFEN**, **CNCOD**). At the national workshop, in addition, were representatives of cooperation partners (UNDP, Swiss Cooperation, Danish Cooperation, Italian Cooperation, World Bank, European Delegation, NBA, NNJC, IUCN).

Subsequently a synthesis of comments received from both two countries was prepared, and field missions organised for obtaining additional information, and preparing the project document. This document, therefore, is the outcome of processes at both national and bilateral levels. A joint validation workshop, in which all the actors and beneficiaries participated, was organised at Kano in December, 2002.

After the workshop, contacts with the partners (Table F 5.1) were maintained with a view to preparing roundtables in Nigeria and in Niger. Finally it is planned to organize a regional workshop to finalise the project document for submission to the GEF Council.

Table F 5.1: Partners

Nigeria	Niger
<p>Local Partners States of the Federation Federal Government Local Governments</p> <p>NGOs National Council of Women Society</p> <p>Cooperation partners African Development Bank (ADB) Canadian International Development Agency (CIDA) Department for International Development (DFID, UK) European Union (EU) German Cooperation (GTZ) Food and Agriculture Organisation (FAO) French Embassy (AFD) International Fund for Agricultural Development (IFAD) Japanese International Cooperation Agency (JICA) The World Bank United Nations Development Programme (UNDP) United States Agency for International Development (USAID)</p>	<p>Local Partners The State CCA/SAP-GC Local Administrations Conseils municipaux</p> <p>NGOs ABC Ecology; AFVP; ANPIP; AREN; CARE COSPE; CWS; EERN; GTA; Initiative Action ; Karakara ; Peace Corps; SDSA; SIM; SOS International ; World Vision.</p> <p>Cooperation partners African Development Bank Arab bank Belgian Cooperation CIDA Danish Cooperation EU FAO French Cooperation German Cooperation (DED, GTZ, KFW) IFAD Italian Cooperation Norwegian Cooperation Swiss Cooperation The World Bank UNDP</p>
<p>Regional/international organisation</p> <p>ECOWAS/CILSS IUCN Aghrymet</p>	

ANNEX F 1: Location of the shared catchment areas (Maps)

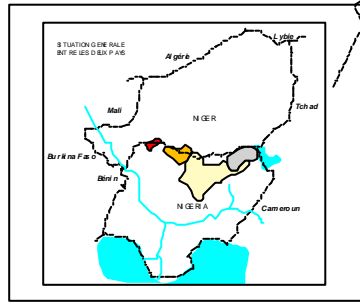
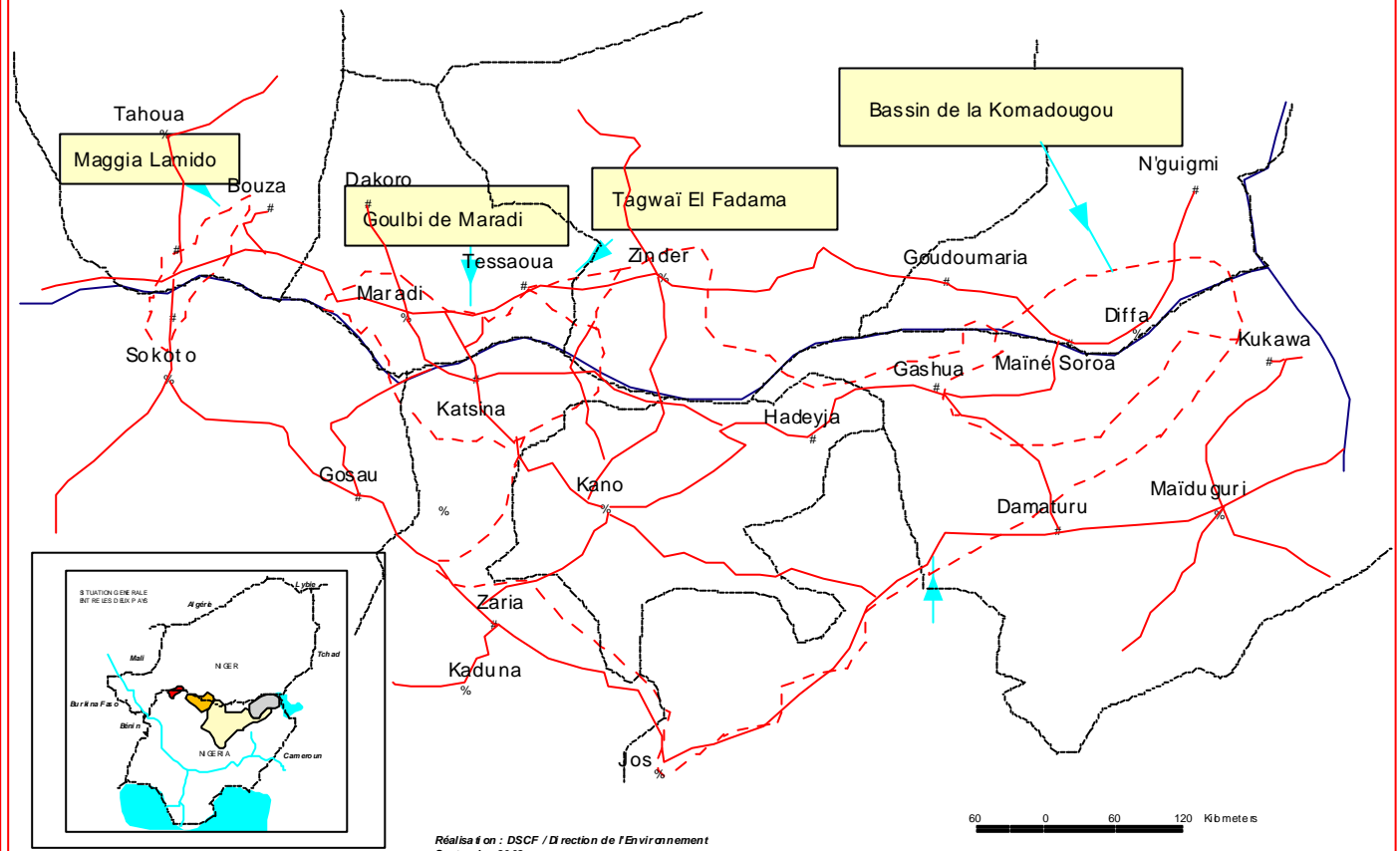
Maps of the Shared Catchments:

1. Location of the four catchments

Available on request:

2. Maggia-Lamido
3. Gada-Gulbin Maradi
4. Tagwai-El Fadama
5. Komadugu-Yobe

LOCALISATION DES BASSINS COMMUNS



Réalisation : DSCF / Direction de l'Environnement
Septembre 2002

ANNEX F6: Monitoring and Evaluation Plan

Introduction

The purpose of monitoring is to review project activities continuously with respect to management and implementation of activities in order to ensure that the work programme is proceeding according to plan. This will allow all participants to maximise efficiency in meeting objectives. The purpose of evaluation is to determine the relevance, efficiency, effectiveness and impact of project activities in terms of their impact, both during the project lifetime and in future.

The basic objectives of the project are to (a) strengthen the capacities of institutions, processes, and communities to manage natural resources sustainably as well as productively, and biological resources in particular; and (b) utilise this capacity to carry through activities which will have a measurable impact on both resource conservation/ productivity and livelihoods/ welfare in the shared catchment areas in the transboundary zone. It is also intended that meeting both of these objectives will provide replicable experience of benefit to other communities/ areas, especially in the inter-catchment transboundary zone.

Programme of monitoring and evaluation

A Monitoring and Evaluation Unit will be set up within the NNJC to work under the PCU. It will be responsible for calling in necessary data from project institutions and personnel, commissioning special evaluations where necessary, and preparing annual and other reports for submission to the RSC. It will facilitate the selection of Impact Indicators at all levels.

Monitoring and Evaluation will take place at three levels: *project execution*, *project performance*, and *impact evaluation*.

Project execution: the management and supervision of project activities and workplans. Information will be collected continuously on the execution of project activities, comparing accomplished with programmed tasks, and advising the PCU (Table F 7.1).

Table F 6.1: Indicators of project execution performance

- The RSC is functioning efficiently, with support from both governments, and is served by effective scientific advisers
 - The NNJC provides effective oversight of and support to the PCU
 - The technical committees provide advice of high quality and co-ordinate national interests effectively
 - The LBCs with the NPUs engage effectively with issues at catchment level, and establish genuine two-way linkages with CBOs
 - CBOs fully reflect a range of local interests, work democratically and accountably, represent vulnerable groups, and succeed in influencing decisions made by NPUs, LBCs, and ultimately the RSC
 - The intervention schedule of activities is completed according to plan or, if decided by the RSC, as revised (see Section 3, 'Intervention strategy')
 - Annual reports and where appropriate, special reports are completed satisfactorily by the PCU for approval by the RSC
 - Disbursements are made on a timely basis
 - Financial audits demonstrate sound practice
-

Project performance: the delivery of project outputs according to the Logframe. This evaluation will be carried out annually for inclusion in the Annual Report which the PCU will submit to the RSC, and after the completion of Phase 1B, may commission special reports or mid-term reports from consultants. Lessons learnt from project performance to the end of Phase 1 will be incorporated in planning Phase 2 (Table F 6.2).

Table F 6.2 Indicators of project performance (Phase 1).

Activity group	Logframe activity numbers	Indicators
Phase 1A: Setting conditions for project planning and implementation		
strengthening the legal and institutional framework, including the NNJC	1.1.1 – 1.1.4	Annual Reports, records of meetings, capacity building effected
planning institutions and processes	1.2.1 – 1.2.5	
coordinated financing	1.3.1 - 1.3.3	M.O.U., records of NPUs and CBOs, published procedures
enhancing the knowledge base	2.1.1 - 2.1.5	Transfer of funds, budgets, audits, annual reports, procedures in place
setting impact indicators	2.1.6	Database, user register, analytical reports, EWS, GIS
harnessing local knowledge	2.2.1 - 2.2.3	M & E reports
water project studies	3.2.2	Participatory surveys, analyses, database, user register
ecosystem management protocols, priorities, evaluations	3.3.1, 3.3.3, 3.3.5	Feasibility
Phase 1B: participatory planning and implementation with partners		
identifying partners	3.1.1	
using knowledge and incentives in planning	2.2.3 - 2.2.4	Registers, records of meetings, evaluations of interest groups
consensus-based institutions for regulating access to NR	2.3.1 - 2.3.3	Records of decisions at PCU, LBC, and NPU levels
community-based management plans	2.3.4 - 2.3.5	Records of negotiations, analytical review, resolved case records
recording and exchanging knowledge	2.4.1 – 2.4.3	Records of meetings, plans agreed
identifying and promoting good practices	3.1.3 – 3.1.4	Database, resource center, user register, dissemination activities
public involvement and mobilising partnerships	3.1.3 - 3.1.4	Inventories, database, good practice guides
water resource management plans	3.2.1, 3.2.3 - 3.2.6	Partnership agreements, capacity building in place, reports
integrated ecosystem management		Published plans, approved by RSC,

plans	3.3.2 - 3.3.5	projects identified, manuals Published plans, approved by RSC, projects identified with CBOs
taking forward learning, experience and activities into Phase 2	3.4.1, 3.4.2	Commissioned reviews, annual reports, forward plans approved by RSC

Project impact: according to agreed indicators. Indicators will be selected and agreed through a participatory process involving all levels, in order to achieve a locally valid assessment of project impact, and shared ownership of project outcomes. This will be done during Phase 1A (Logframe activity 1.1.6), and the indicators will be introduced in Phase 1B, and revised as necessary for Phase 2. Impact indicators will be applied at three scales: (a) project (all catchments; PCU/NNJC), (b) catchments (LBCs, NPU); and (c) communities (CBOs). The chosen indicators will be approved by the RSC before evaluation begins. The specified institutions will be required to carry out evaluations annually and assisted as necessary by the M & E Unit, which will also facilitate the synthesis of findings at higher levels. Impact evaluations will be the subject of a special section in the Annual Report, and (when necessary) of special reports to the RSC.

Table F 6.3: Indicators of project impact: schedule for determination and implementation

Phase 1A

- Establishment of project institutions at all levels (RSC, PCU, LBCs, NPUs, CBOs)
- Consensus building at LBC, NPU, and CBO levels on the principles, objectives, approach, and expected impact of the project, facilitated by M & E Unit
- Facilitation (by M & E Unit) of selection of impact indicators at the different levels
- Harmonisation (by M & E Unit) and agreement on indicators applicable at the different levels
- Submission of integrated list of Impact Indicators to RSC for approval

Phase 1B

- Introduction of Impact Indicators at the different levels
- Preliminary use of Indicators at the end of Year 3 of the project; application of learning; synthesis by M & E Unit and presentation in Annual Report
- Second round at the end of Year 4 of the project; definitive synthesis by M & E Unit; incorporation in Annual Report and Mid-Term/ End of Phase 1 Review

Phase 2

- Revision of Impact Indicators if required
- Routine application annually during Phase 2

The tools, methods, and indicators for measuring impact will be defined during a sub-regional methodology workshop to ensure that a standardized framework is shared by the two countries involved. Two impact evaluations are envisaged one at the end of each phase of 4 years.

Monitoring and Evaluation responsibilities

These will be apportioned between units as shown in Table F 6.4:

Table F 6.4: Monitoring and Evaluation responsibilities

RSC/UNEP	PCU/M & E Unit	LBCs	NPUs	CBOs
Agree the M & E Plan in accord with the terms of agreement with GEF				
Approve Annual Reports which include M & E presentations	Present M & E section in Annual Reports, based on continuing monitoring	Supply continuing M & E data as requested by PCU	Supply continuing M & E data as requested by PCU	Assist NPU to obtain data on activities of CBO in area of interest
Approve special M & E reviews commissioned by the PCU/M & E Unit	Commission special reviews as required	Assist PCU in carrying out special reviews	Assist LBC in carrying out special reviews	Assist LBC in carrying out special reviews
Approve Impact Indicators after discussion at all levels and synthesis by M & E Unit	Facilitate multi-level selection and agreement of Impact Indicators	Agree Impact Indicators at LBC level and facilitate at NPU and CBO levels	Agree Impact indicators at NPU level and facilitate at CBO level	Agree Impact Indicators for area of interest
Approve any revisions later recommended by PCU	Synthesise into unitary submission for approval by RSC	Submit agreed Indicators to PCU/ M & E Unit	Submit agreed Indicators to PCU/M & E Unit	Submit agreed Indicators to NPU
	Supervise routine M & E throughout project lifetime	Submit annual evaluations to PCU/ M & E Unit	Advise LBC on annual evaluations to PCU/M & E Unit	Advise NPU on annual evaluations to PCU/M & E Unit

Table F 6.5: Expected Monitoring and evaluation reports

- baselines for natural resources inventories
- database evaluations (annual)
- technical and thematic reports (as commissioned)
- financial audit reports (annual)
- internal evaluation reports (quarterly)
- state-of-the-environment reports (quarterly or half-yearly)
- running reports on catchment plan implementation and community-based management plan execution
- mid-term evaluation reports (two years)

- end-of-phase final evaluation report (four years)
- M & E input to annual, half -yearly and quarterly activity reports

Table F 6.6: Evaluation of activities planned for the project

Component 1: Subregional integration, harmonisation and cooperation in strategies for the management of transboundary natural resources

Activities	Indicators of monitoring	Frequency of monitoring	Responsible
<i>1.1 Legal and institutional framework for subregional co-ordination in the formulation and implementation of harmonized policies, the management of conflicts, and regulation of access to and benefits from natural resources, functional</i>			
1.1.1.	Reports, record of political process	Annual	NNJC/GEFCNNJ/ UNEP/GEF
1.1.2	Report Record of political process	Annual	NNJC/ Govt. of Niger/ Nigeria/ UNEP/GEF
1.1.3	Study report	Once, during Phase 1A	The two Governments ; RCU ; UNEP/GEF
1.1.4	Study reports, meeting reports,	Once, end of Phase I A	RCU, Local Project Units, CBOs,
<i>1.2. Strengthened subregional, catchment, and community level institutions and processes for collaboration among partners, representing interests, identifying strategies, and planning NR management or projects, operational</i>			
1.2.1	Memorandum of Understanding Document	Monthly	Governments ; RCU
1.2.2	Reports of National Project Units,	Annual	National Project Units (NPU)
1.2.3	Publications	Start of Pghase 1A	NNJC/RCU
1.2.4	Report and Database	Phase I A	RCU
1.2.5	Agreement Document, records of meetings	Phase I B	Governments; CBL
<i>1.3. Co-ordinated financing of project activities between the two countries, at catchment and community level enabled and implemented</i>			
1.3.1.	Annual reports, Audits and managment reports	During Phase 1 A	NNJC
1.3.2.	Training/course reports, annual reports	During Phase 1 A	RCU, NPU, NTC, CBO
1.3.3.	Course reports, annual reports	Phase 1 B	UCRP, CTN

Component 2: Strengthened capacity to harness indigenous and research-based knowledge to support the conservation and equitable sharing of natural resources, and reduce vulnerability to environmental variability and change

Activities	Indicators of monitoring	Frequency of monitoring	Responsible
2.1 Research-based knowledge of the natural ecosystems of the shared catchments, their past and present management, and the causes and impacts of land degradation and drought, enhanced and in use			
2.1.1.	GIS Database, Registers of users	End of Phase 1 A	RCU, NTC
2.1.2.	Analytical reports	End of Phase 1 A	RCU, NTC
2.1.3.	Analytical reports	2x in Phase 1A	RCU, RSC, NTC
2.1.4.	Study reports	End Phase 1A	RCU, RSC, NTC
2.1.5.	Study reports	End Phase 1 A	RCU, RSC, NTC
2.1.6.	M&E reports	End Phase 1 A	RCU, RSC, NTC
2.2 Local knowledge and values of ecosystem services, including biodiversity, according to both economic and cultural criteria, integrated into natural resources management activities and programmes			
2.2.1.	Records from surveys and feild meetings	Annual	LBC, NTC, RSC
2.2.2.	Database, Users' register	End Phase 1 B	RSC, NTC
2.2.3.	Records of decisions	Annual	NTC
2.2.4.	Pubications	Annual	LBC, NTC
2.3. Good practices for managing equitable access to, and conflicts of interest in, natural resources and their benefits, identified and promoted			
2.3.1.	Protocols, NPU records, Annual reports	Annual	LBC, NTC
2.3.2.	NPU records	Annual	NTC
2.3.3.	NPU records	Annual	LBC, NTC, RSC
2.3.4.	NPU records, No. of plans agreed	Annual, Phase 1B	LBC, NTC, RSC
2.3.5.	NPU records, survey counts	Annual, Phase 1B	LBC, NTC, RSC
2.4 Subregional mechanism for recording, exchanging and disseminating technologies, good practices and experience established			
2.4.1.	Database	Annual, Phase 1B	LBC, NTC
2.4.2.	Number of bulletins, guides, publications and radio & TV broadcast	Annual, Phase 1B	NTC
2.4.3.	Catchmnt documents, synthesi reports,	Annual, Phase 1B	LBC, NTC, RSC

Component 3: Enhanced planning and implementation of cooperative and participatory management strategies for sharing natural resources, reversing ecosystem degradation, conserving biodiversity and increasing productivity to improve rural livelihoods

Activities	Indicators of monitoring	Frequency of monitoring	Responsible
3.1	Public involvement in the process of planning and implementation extended to all stakeholders, and direct incentives provided for community participation in project activities		
3.1.1	Partnership Agreements	Annual, Phase 1B	LBC, NPU
3.1.2	Registers, records of meetings	Annual, Phase 1A	LBC, NPU
3.1.3	Staff records and records of meetings	Annual, Phase 1B	LBC, NPU
3.1.4	Reports, evaluation of impact at NPU level, evaluation of stakeholders involvement	Annual, Phase 1B	LBC, NPU
3.2	Implementation of subregional and community-based plans for conservation and shared use of water resources		
3.2.1	Published plans agreed by RSC	Annual, Phase 1B	NNJC, NPU
3.2.2	Studies and reports	Annual, Phase 1A	NNJC, Govts.
3.2.3	Implementation reports	Annual, Phase 1B	LBC, NPU, NNJC
3.2.4	Manuals published, reports on uptake	Annual, Phase 1B	NPU, NNJC
3.2.5	NPU records, monitoring	Annual, Phase 1B	LBC, NPU
3.2.6	NPU reports	Annual, Phase 1B	NPU
3.3.	Implementation of subregional and community-based plans for conservation and shared use of land resources		
3.3.1	Protocol, management plans, implementation reports	Annual, Phase 1A	NPU
3.3.2	Management plans implemented	Annual, Phase 1B	NNJC, NPU
3.3.3	Management plans and reports at NPU	Annual, Phase 1B	NPUs,
3.3.4	Inventory and analyses reports, publication	Annual, Phase 1B	NNJC
3.3.5	<i>Publication de guide et rapports</i>	Annual, Phase 1B	NNJC , NPU
3.4	Taking forward learning, experience and activities on participatory and sustainable management into Phase 2		
3.4.1	M&E reports, Annual reports	Annual	LBC, NPU, NNJC, UNEP, GEF
3.4.2	RSC reports, Evaluation reports	Annual, Phase 1B	LBC, NPU, NNJC, UNEP, GEF

ANNEX F7: INTEGRATED ECOSYSTEM MANAGEMENT (IEM) CONCEPT AS APPLIED TO THE NIGER-NIGERIA PROJECT

The term ‘integrated ecosystem management’ as employed in this Project Document embodies the following core ideas:

- **ecosystem** is a coherent and complex suite of natural resources, functioning through linkages and interactions, that is bounded in space but may change over time, and while diverse in its parts yet possesses sufficient internal structure to distinguish it from adjacent ecosystems
- **management** is a property of an ecosystem that reflects the values put on the natural resources by human communities either in its immediate vicinity or elsewhere, the knowledge that is applied to their exploitation and/or conservation, and the technologies used
- **integrated management** combines the fundamental objectives of sustainability and productivity in a managed ecosystem, reconciles the claims of competing stakeholders, and maintains the coherence found in natural ecosystems by means of appropriate management modes.

The allied concept of an Ecosystem Approach as enunciated by the Convention on Biodiversity as been set out in terms of 12 operating Principles. In order to enhance their usefulness as a toolkit for managing ecosystems, further work undertaken by the Commission on Ecosystem Management of the IUCN has re-ordered these in five *steps* which offer a sequential approach with generic applicability.

Using the Ecosystem Approach (with some modifications), a case study of a dryland area is being carried out in the transboundary zone between Niger and Nigeria. Three villages in Maradi Region, Niger and two in Kano and Jigawa States, Nigeria, are included in the study, whose Purpose is stated as follows:

By mapping local stakeholders’ conceptualization and management of ecosystem resources, to promote effective knowledge sharing, and facilitate institutional development, for equitable and sustainable conservation of biodiversity and ecosystem functions, taking account of interests from local to global.

The five Steps are implemented as follows:

Step A: determining the stakeholders and defining the ecosystem management areas. Detailed participatory field work to identify stakeholder groups, their claims to natural resources, rights and benefits, and mapped the complex interactions and linkages involved.

Step B: using shared local and external knowledge to understand ecosystem function and management. Local knowledge is rich and diverse and can share with external knowledge the task of assessing ecosystem status and change and reaching agreement on harmonising conflicting or competing objectives in management.

Step C: strengthen enabling incentives. Ways are identified for project interventions or policies to improve economic incentives for resource users to invest in sustainable technologies and enterprises. These include associations, risk insurance mechanisms, new or strengthened management institutions, and improved accountability in governance.

Steps D, E: adaptive management. Managed ecosystems interact with one another in space and change through time. Participatory assessment of these interactions and changes, and the responses to them, should be built into project design and planning.

Applying and reviewing IEM through the lifetime of the Project.

Integrated ecosystem management is an evolving concept and experience in applying it in different situations will require its continuous review and improvement as a management tool. This may be undertaken by one or more Partners ensuring continuity, consistency, and relevance at all levels from the Regional Coordinating Unit to Civil Society. The review process should be implemented in conjunction with the following inputs from ongoing research:

- mapping ecosystem resources through convening stakeholder for a.
- integrating local with external knowledge in ecosystem assessment and management
- negotiating goals, access and benefits among a range of actors at local level
- scaling up local successes to larger areas.

ANNEX 1: Budgets (regional & national) in UNEP Format

1a: Regional Budget (NNJC)

		Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012	Total
1101	Project Coordinator (Coordonnateur du Projet)	50,750.00	50,750.00	50,750.00	50,750.00	50,750.00	50,750.00	50,750.00	50,750.00	406,000.00
1102	Principal technical Adviser (Conseiller technique principal)	21,000.00	21,000.00	21,000.00	21,000.00	21,000.00	21,000.00	21,000.00	21,000.00	168,000.00
1103	GIS, Monitoring and evaluation Officer (Agent de GIS et de suivi-évaluation)	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	120,000.00
1105	Accountant (Comptable)	7,200.00	7,200.00	7,200.00	7,200.00	7,200.00	7,200.00	7,200.00	7,200.00	57,600.00
1106	Secretary (Secrétaire)	3,600.00	3,600.00	3,600.00	3,600.00	3,600.00	3,600.00	3,600.00	3,600.00	28,800.00
1107	Driver (2 Chauffeurs)	4,800.00	4,800.00	4,800.00	4,800.00	4,800.00	4,800.00	4,800.00	4,800.00	38,400.00
1201	Consultant for identifying and implementing projects activities subregional, catchment and community levels (Consultant sur l'identification et d'implantation de projets aux niveaux régional, par bassin et local)	8,000.00	-	-	-	-	-	-	-	8,000.00
1202	Consultant Bulletins information, guides, technical support (Consultant pour la mise en place d'un cadre d'échange)	-	-	8,000.00	-	-	-	-	-	8,000.00
1203	Consultant Capitalisation of project experience (Consultant en capitalisation)	2,000.00	2,000.00	2,000.00	2,000.00	-	-	-	-	8,000.00
1204	Consultant Feasibility studies of hydraulic development schemes (Consultant sur la faisabilité d'aménagement des ressources en eaux)	75,000.00	-	-	-	-	-	-	-	75,000.00
1205	Consultant preparation of a guide on good practices for dissemination (Consultant pour l'élaboration d'un guide sur les bonnes pratiques)	-	-	-	15,000.00	-	-	-	-	15,000.00
1301	2 Officers of NNJC (2 Cadres de la NNJC)	10,368.00	10,368.00	10,368.00	10,368.00	10,368.00	10,368.00	10,368.00	10,368.00	82,944.00
1302	2 Office Security men (2 Gardiens)	-	-	-	-	-	-	-	-	-

		Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012	Total
		-	-	-	-	-	-	-	-	-
1303	Messenger (Planton)	-	-	-	-	-	-	-	-	-
1304	Cleaner (Personnel Entretien des locaux)	-	-	-	-	-	-	-	-	-
1601	Mission to RCU (Missions de l'URC)	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	10,000.00
1602	Mission to sites (Missions sur les sites)	8,750.00	8,750.00	8,750.00	8,750.00	8,750.00	8,750.00	8,750.00	8,750.00	70,000.00
2101	Legal and institutional framework for subregional co-ordination in the formulation and implementation of harmonized policies, the management of conflicts, and regulation of access to and benefits from natural resources, functional	15,000.00	15,000.00	-	-	15,000.00	15,000.00	-	-	60,000.00
2102	Strengthened subregional, catchment, and community level institutions and processes for collaboration among partners, representing interests, identifying strategies, and planning NR management or projects, operational	15,000.00	15,000.00	-	-	15,000.00	15,000.00	-	-	60,000.00
2103	Co-ordinated financing of project activities between the two countries, at catchment and community level enabled and implemented	-	10,000.00	-	-	10,000.00	10,000.00	-	10,000.00	40,000.00
2104	Research-based knowledge of the natural ecosystems of the shared catchments, their past and present management, and the causes and impacts of land degradation and drought, enhanced and in use	-	10,000.00	-	-	10,000.00	10,000.00	-	10,000.00	40,000.00
2105	Subregional mechanism for recording, exchanging and disseminating technologies, good practices and experience established	-	7,500.00	-	-	7,500.00	7,500.00	-	7,500.00	30,000.00
2106	Implementation of subregional and community-based plans for conservation and shared use of water resources	-	5,000.00	-	-	5,000.00	5,000.00	-	5,000.00	20,000.00
2107	Implementation of subregional and community-based plans for conservation and shared use of land resources	-	5,000.00	-	-	5,000.00	5,000.00	-	5,000.00	20,000.00

		Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012	Total
3101	Prior Year's Adjustments (ajustements de l'année précédente)	-	-	-	-	-	-	-	-	-
3201	Group training : Participation in training sessions (Participation à des sessions d'échanges et de formation)	-	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	7,000.00	28,000.00
3207	Travel fees (Frais de voyage)	-	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	9,000.00	36,000.00
3208	Transborder transhumance routes facility (Accord sur la transhumance transfrontalière)	-	-	-	-	-	-	-	6,000.00	6,000.00
3209	Development of a common fund (Mise en place d'un fonds commun)	-	-	-	-	-	-	-	6,000.00	6,000.00
3210	Financial procedures and submitting pilot projects (Procédures de financement et l'élaboration de dossiers de projets pilotes)	-	-	-	-	-	-	-	6,000.00	6,000.00
3211	Capitalisation of project experience (Séminaire sur la capitalisation des expériences)	-	-	-	6,000.00	-	-	-	-	6,000.00
3212	New profitable alternatives for sustainable natural resources (Séminaire sur les alternatives de gestion durable des ressources naturelles)	-	-	-	6,000.00	-	-	-	-	6,000.00
3213	Launching the project (Séminaire de lancement du projet)	-	-	-	-	-	-	-	6,000.00	6,000.00
3214	Bilateral Committee Meetings: Regional Steering Committee, Experts Standing Committes (Meeting des comités bilatéraux: Comité de pilotage régional, Comités permanents des experts)	-	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	6,000.00	24,000.00
3215	Follow-up joint technical committes of experts (Séminaires des comités techniques mixtes de suivi des experts)	-	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	12,000.00	48,000.00
3216	Travel fees (Frais de voyage)	-	-	-	10,000.00	-	-	-	10,000.00	20,000.00
3301	Conference on drought occurrence, impact analysis, and prediction modeling (Conférence sur la sécheresse)	-	10,000.00	-	-	-	-	-	-	10,000.00
3302	Conference on management of transborder water resources (Conférence sur la gestion des eaux transfrontalières)	-	-	-	-	10,000.00	-	-	-	10,000.00

		Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012	Total
3303	Meetings of Regional Technical Committee	-	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00	12,500.00	50,000.00
3304	Travel fees (Frais de voyage)	-	3,125.00	3,125.00	3,125.00	3,125.00	3,125.00	3,125.00	6,250.00	25,000.00
4101	Office Equipment (fournitures de bureau)	-	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	4,000.00	16,000.00
4102	Documents, Softwares (documentation, programmes informatiques)	-	1,750.00	1,750.00	1,750.00	1,750.00	1,750.00	1,750.00	3,500.00	14,000.00
4103	Fournitures Equipments (équipements mobiliers)	-	938.00	938.00	938.00	937.00	937.00	937.00	1,875.00	7,500.00
4104	Cartography equipment/Maps and others (Fournitures carographiques/Cartes et autres)	-	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	6,000.00	24,000.00
4201	2 vehicle for field trips (1 véhicule 4x4 et 1 de pool)	-	-	-	-	-	-	-	55,000.00	55,000.00
4202	Office Equipment (Computers, etc) (equipements informatiques: ordinateurs, ..)	-	-	-	-	-	-	-	15,000.00	15,000.00
4203	Provision of split Air conditionens (Matériels de climatisation et de ventilation)	-	-	-	-	-	-	-	9,000.00	9,000.00
4204	Audio visuel equipment: camera, projectors, TV sets, video..(équipements audio-visuels: caméras, projecteurs,téléviseurs, vidéo, ...)	-	-	-	-	-	-	-	6,000.00	6,000.00
4205	GIS and cartographique equipment (équipements SIG et cartographie)	-	-	-	-	-	-	-	17,500.00	17,500.00
4206	Simultaneous interpretation equipment in the conference room of NNJC (Matériels d'interprétation simultanée/aménagement de la salle de réunions de la NNJC)	-	-	-	-	-	-	-	12,500.00	12,500.00
4207	Photocopy equipment (équipements de reprographie)	-	-	-	-	-	-	-	7,000.00	7,000.00
4301	Premises (Locaux)	-	-	-	-	-	-	-	-	-
5101	Maintenance of Computer Equipment (Entretien des équipements, ordinateurs)	-	300.00	300.00	300.00	500.00	500.00	500.00	800.00	3,200.00
5102	Maintenance of audio visual Equipment (Entretien des équipements audio-visuels)	-	150.00	150.00	150.00	250.00	250.00	250.00	400.00	1,600.00

		Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012	Total
5103	Maintenance of GIS and Map Equipment (Entretien des équipements SIG et Cartographie)	-	188.00	188.00	188.00	312.00	312.00	312.00	500.00	2,000.00
5104	Maintenance of Vehicule (Assurance, Entretien des véhicules)	-	1,125.00	1,125.00	1,125.00	1,875.00	1,875.00	1,875.00	3,000.00	12,000.00
5105	Maintenance of Premises (Entretien des locaux)	24,000.00	-	-	-	12,000.00	-	-	-	36,000.00
5106	Maintenance of Photocopy Equipment (Entretien des équipements de reprographie)	234.00	234.00	234.00	234.00	391.00	391.00	391.00	391.00	2,500.00
5107	Fuel (Carburant)	25,000.00	-	-	-	15,000.00	-	-	-	40,000.00
5108	Hiring conference halls (location salles de réunions)	750.00	750.00	750.00	750.00	1,250.00	1,250.00	1,250.00	1,250.00	8,000.00
5109	Maintenance of interpretation equipment	208.00	208.00	208.00	208.00	417.00	417.00	417.00	417.00	2,500.00
5201	Reporting including translation (Rapports inclus les traductions)	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	60,000.00
5202	Public of newsletters (Publication de bulletins d'information)	3,083.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	6,917.00	40,000.00
5203	Production of thematic maps (Production de cartes thématiques)	8,000.00	8,000.00	8,000.00	8,000.00	8,000.00	8,000.00	8,000.00	8,000.00	64,000.00
5204	Dissemination of reports (Diffusion des rapport)	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	32,000.00
5301	Communications (Communications, téléphone, fax, e-mail, ...)	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	12,000.00
5302	Publication, Press (publication, presse)	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	10,000.00
5303	Postages costs (frais postaux)	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	600.00
5304	Fiscal taxes: customs, clearance, taxes (frais fiscaux: dédouanement, taxes)	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	12,000.00
5401	Reception (Réceptions)	600.00	600.00	600.00	600.00	400.00	400.00	400.00	400.00	4,000.00
5501	Internal monitoring missions (missions de suivi)	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	32,000.00
5502	Internal evaluations of performance (évaluations	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	40,000.00

		Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012	Total
	internes de suivi des performances)									
5503	Financial audits (audits financiers)	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	10,000.00
5504	Mission allowances (frais de missions)	6,132.00	6,132.00	6,132.00	6,132.00	6,132.00	6,132.00	6,132.00	6,484.00	49,408.00
5581	Implementation service (5%)	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	200,000.00
GRAND TOTAL		356,800.00	310,043.00	240,543.00	269,543.00	336,882.00	299,882.00	232,382.00	463,977.00	2,510,052.00

1b: National Budget (Nigeria)

	National Budget (Nigeria)	2005	2006	2007	2008	2009	2010	2011	2012	Total
1101	1 National Project Manager	16,750.00	16,750.00	16,750.00	16,750.00	16,750.00	16,750.00	16,750.00	16,750.00	134,000.00
1102	1 Technical Assistant	3,120.00	3,120.00	3,120.00	3,120.00	3,120.00	3,120.00	3,120.00	3,120.00	24,960.00
1103	4 Assistant Project Managers (1 per basin)	24,530.00	24,530.00	24,530.00	24,530.00	24,530.00	24,530.00	24,530.00	24,530.00	196,240.00
1104	12 Extension officers (3 per basin)	27,000.00	27,000.00	27,000.00	27,000.00	27,000.00	27,000.00	27,000.00	27,000.00	216,000.00
1105	5 Secretaries	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	96,000.00
1106	1 Accountant	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	48,000.00
1107	5 Messengers	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	4,800.00
1108	5 Maintenance officers	-	-	-	-	-	-	-	-	-
1109	12 Office Security Men	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	24,000.00
1110	6 Drivers	12,600.00	12,600.00	12,600.00	12,600.00	12,600.00	12,600.00	12,600.00	12,600.00	100,800.00
1201	Identification of capacity needs and technical services for stakeholders including local communities	7,250.00	-	-	-	-	-	-	-	7,250.00
1202	Identification of economic, social and cultural values for establishment of data base and preparation of guidelines on best practices and local strategies for the sustainable use and conservation of biologic diversity	-	-	15,000.00	-	-	-	-	-	15,000.00
1203	Identification and evaluation of indirect incentive measures, prices, access to market, savings, information dissemination	-	7,500.00	-	-	-	-	-	-	7,500.00
1204	Preparation of institutional framework for the prevention and management of conflicts in the pilote sites	-	7,500.00	-	-	-	-	-	-	7,500.00

	National Budget (Nigeria)	2005	2006	2007	2008	2009	2010	2011	2012	Total
1205	Identification of a framwoork for equitable access to resources and advantages derived from their management	-	7,500.00	-	-	-	-	-	-	7,500.00
1206	Identification, and mapping of 12 pilot sites	20,500.00	-	-	-	-	-	-	-	20,500.00
1207	Development of water resources management schemes	20,500.00	-	-	-	-	-	-	-	20,500.00
1208	Development of a framework to enhance participation of local community, private sector and the civil society	-	7,500.00	-	-	-	-	-	-	7,500.00
1209	Development of a concerted pilot project on agricultural scheme in each basin	-	15,000.00	-	-	-	-	-	-	15,000.00
1210	Development of five pilot projects for protection and restoration of agricultural lands in each pilot sites	-	7,500.00	-	-	-	-	-	-	7,500.00
1211	Development of two concerted pilot projects, local and common, for protection and restoration of grazing lands in each basin	-	15,000.00	-	-	-	-	-	-	15,000.00
1212	Development of a one common pilot project and two local projects for the fishery development in each basin	-	15,000.00	-	-	-	-	-	-	15,000.00
1213	Development of economic trees in each pilot sites	-	15,000.00	-	-	-	-	-	-	15,000.00
1214	Establishment of a common wildlife project	-	22,500.00	-	-	-	-	-	-	22,500.00
1215	Preparation of a concerted pilot project for the apiculture development in each basin	-	7,500.00	-	-	-	-	-	-	7,500.00
1216	Development of a pilot project for the domesticaion of wildlife in each basin	-	15,000.00	-	-	-	-	-	-	15,000.00
1217	Improvement of management of common resources and identification of appropriate indicators	-	15,000.00	-	-	-	-	-	-	15,000.00
1218	Preparation of phase 2 including monitoring, performance and impact indicators	-	15,000.00	-	-	-	-	-	-	15,000.00
1301	Expert GIS/Monitoring and evaluation	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	36,480.00

	National Budget (Nigeria)	2005	2006	2007	2008	2009	2010	2011	2012	Total
1302	Expert on Water resources management	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	36,480.00
1303	Expert on sustainable land management	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	36,480.00
1304	Expert on Training/community participation	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	36,480.00
1305	Expert on livestock/agriculture	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	4,560.00	36,480.00
1601	Mission to RCU	8,000.00	8,000.00	8,000.00	10,000.00	8,000.00	10,000.00	10,000.00	10,000.00	72,000.00
1602	Mission to sites	8,000.00	8,000.00	8,000.00	8,000.00	8,000.00	10,000.00	10,000.00	10,000.00	70,000.00
2101	Implementation of target incentive measures and the programme for strengthening the local structures and technical services capacities	-	4,667.00	4,667.00	4,666.00	5,250.00	5,250.00	5,250.00	5,250.00	35,000.00
2102	Implementation of water resources management schemes	-	7,333.00	7,333.00	7,334.00	8,250.00	8,250.00	8,250.00	8,250.00	55,000.00
2103	Implementation of three pilot projects for protection and restoration of agricultural land in each basin	-	-	28,800.00	28,800.00	21,600.00	21,600.00	21,600.00	21,600.00	144,000.00
2104	Implementation of two pilot projects, common and local, for protection and restoration of grazing lands in each basin	-	-	20,000.00	20,000.00	15,000.00	15,000.00	15,000.00	15,000.00	100,000.00
2105	Implementation of a common pilot project and two local projects for fishery development in each basin	-	-	20,400.00	20,400.00	15,300.00	15,300.00	15,300.00	15,300.00	102,000.00
2106	Implementation of a three pilot projects for economic trees in each basin	-	-	17,000.00	17,000.00	12,750.00	12,750.00	12,750.00	12,750.00	85,000.00
2107	Implementation of a common biodiversity (fauna and flora habitat) project	-	-	9,000.00	9,000.00	6,750.00	6,750.00	6,750.00	6,750.00	45,000.00
2108	Implementation of a pilot project for apiculture development in each basin	-	-	10,000.00	10,000.00	7,500.00	7,500.00	7,500.00	7,500.00	50,000.00
2109	Implementation of a pilot project for domestication of wildlife in each basin	-	-	10,000.00	10,000.00	7,500.00	7,500.00	7,500.00	7,500.00	50,000.00
3101	Participation in exchanges and training sessions	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	24,000.00

	National Budget (Nigeria)	2005	2006	2007	2008	2009	2010	2011	2012	Total
3102	Travel Fees	4,250.00	4,250.00	4,250.00	4,250.00	4,250.00	4,250.00	4,250.00	4,250.00	34,000.00
3201	Legal institutional framework and environmental policies	-	-	-	-	7,000.00	-	-	-	7,000.00
3202	GIS and data base management	7,000.00	-	-	-	-	-	-	-	7,000.00
3203	Biological and socio-économic indicators of project impact	-	5,000.00	-	-	-	-	-	-	5,000.00
3204	Prevention of conflicts	-	5,000.00	-	-	-	-	-	-	5,000.00
3205	Mobilising of human and financial resources	-	-	7,000.00	-	-	-	-	-	7,000.00
3206	New and profitable alternatives for sustainable natural resources management	-	-	7,000.00	-	-	-	-	-	7,000.00
3207	Projects planning and participative approaches	-	-	-	7,000.00	-	-	-	-	7,000.00
3208	Identification, and mapping of pilot sites	7,500.00	-	-	-	-	-	-	-	7,500.00
3209	Transborder transhumance routes	7,500.00	-	-	-	-	-	-	-	7,500.00
3210	Local partnership on equitable access to resources	-	7,500.00	-	-	-	-	-	-	7,500.00
3211	Establishment of data base and preparation of guidelines on local strategies for the conservation of biologic diversity	-	-	7,500.00	-	-	-	-	-	7,500.00
3212	Improvement of management of common resources and identification of appropriate indicators experience and best practices for management of shared resources	-	-	7,500.00	-	-	-	-	-	7,500.00
3213	Preparation of phase 2 including monitoring and evaluation	1,875.00	1,875.00	1,875.00	1,875.00	-	-	-	-	7,500.00
3214	Planning implementation of project activities	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00	60,000.00
3215	Enhancing participation of all stakeholders	10,000.00	10,000.00	8,000.00	8,000.00	8,000.00	11,000.00	11,000.00	11,000.00	77,000.00
3301	Launching of project	7,500.00	-	-	-	-	-	-	-	7,500.00

	National Budget (Nigeria)	2005	2006	2007	2008	2009	2010	2011	2012	Total
3302	Hydraulic development schemes	-	-	7,500.00	-	-	-	-	-	7,500.00
3303	Natural resources and integrated ecosystems management	-	-	7,500.00	-	-	-	-	-	7,500.00
4101	Office Equipment	4,063.00	1,063.00	4,063.00	4,063.00	4,063.00	4,063.00	4,061.00	4,061.00	29,500.00
4102	Documentation, Softwares	5,000.00	3,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	38,000.00
4103	Furniture / Equipment	4,687.00	1,687.00	4,687.00	4,687.00	4,688.00	4,688.00	4,688.00	4,688.00	34,500.00
4201	5 Four-wheel drive vehicles for field trips (petrol)	137,500.00	-	-	-	137,500.00	-	-	-	275,000.00
4202	1 4*4 Utility vehicle	50,000.00	-	-	-	-	-	-	-	50,000.00
4203	10 Motorcycles	15,500.00	-	-	-	-	-	-	-	15,500.00
4204	Computers and accessories	35,000.00	-	-	-	-	-	-	-	35,000.00
4205	Audio visual equipment: camera, projectors, TV sets, .	15,000.00	-	-	-	-	-	-	-	15,000.00
4206	GIS and cartography equipments /Softwares	32,500.00	-	-	-	-	-	-	-	32,500.00
4207	Reprography equipment	20,000.00	-	-	-	-	-	-	-	20,000.00
4301	Premises	-	-	-	-	-	-	-	-	-
5101	Maintenance of Computers	-	1,040.00	1,039.00	1,040.00	1,040.00	1,040.00	1,040.00	1,040.00	7,279.00
5102	Maintenance of audio visuals	-	733.00	732.00	732.00	733.00	733.00	733.00	733.00	5,129.00
5103	Maintenance of GIS and Map equipment	-	1,071.00	1,071.00	1,071.00	1,071.00	1,072.00	1,072.00	1,072.00	7,500.00
5104	Maintenance of Vehicles	3,125.00	4,249.00	5,374.00	7,498.00	3,291.00	3,581.00	10,872.00	25,160.00	63,150.00
5105	Maintenance of Motorcycles	819.00	638.00	956.00	1,275.00	744.00	1,488.00	2,231.00	2,974.00	11,125.00

	National Budget (Nigeria)	2005	2006	2007	2008	2009	2010	2011	2012	Total
5106	Maintenance of Premises	-	2,500.00	-	-	3,000.00	2,000.00	-	7,500.00	15,000.00
5107	Maintenance of Reprography equipment	-	2,813.00	2,813.00	2,813.00	6,562.00	6,562.00	6,562.00	9,375.00	37,500.00
5109	Fuel	-	5,625.00	5,625.00	5,625.00	13,125.00	13,125.00	13,125.00	18,750.00	75,000.00
5110	Electricity, water	-	-	-	-	-	-	-	-	-
5201	Reporting including audit	-	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	5,000.00	20,000.00
5202	Public of newsletters	-	3,125.00	3,125.00	3,125.00	3,125.00	3,125.00	3,125.00	6,250.00	25,000.00
5203	Production of thematic maps	-	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	5,000.00	20,000.00
5204	Dissemination of reports	-	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	3,750.00	15,000.00
5301	Communications	-	6,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	10,000.00	41,000.00
5302	Postage and Poch	-	500.00	500.00	500.00	500.00	500.00	500.00	1,000.00	4,000.00
5302	Freight and port clearance	-	-	-	-	-	-	-	-	-
5303	Support Services	-	8,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	14,000.00	52,000.00
5401	Reception	-	6,000.00	6,000.00	6,000.00	4,000.00	4,000.00	4,000.00	10,000.00	40,000.00
5501	Internal monitoring missions	-	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00	18,000.00	72,000.00
5502	External monitoring and evaluation missions	-	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00	12,500.00	50,000.00
5503	Financial audits	-	-	-	-	-	-	-	-	-
5504	Participatory evaluation by the local Committees	-	11,875.00	6,875.00	6,875.00	6,875.00	6,875.00	6,875.00	19,750.00	66,000.00
5505	Mission allowances	1,591.00	7,771.00	7,771.00	6,771.00	7,771.00	7,771.00	7,771.00	10,948.00	58,165.00

	National Budget (Nigeria)	2005	2006	2007	2008	2009	2010	2011	2012	Total
5581	Implementation Services to ICISAT	15,000.00	15,000.00	15,000.00	15,000.00	30,000.00	10,000.00	22,000.00	15,000.00	137,000.00
										-
GRAND TOTAL		588,060.00	477,840.00	458,981.00	410,425.00	540,263.00	382,798.00	400,830.00	485,601.00	3,744,798.00

1c: National Budget (Niger)

	Niger Budget (Niger)	Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012	Total
1101	1 Coordonnateur National du Projet	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00	160,000
1103	4 Chefs d'antennes locales (1 par bassin)	19,600.00	19,600.00	19,600.00	19,600.00	19,600.00	19,600.00	19,600.00	19,600.00	156,800
1104	12 Agents d'animation et de vulgarisation (3 par bassin)	27,000.00	27,000.00	27,000.00	27,000.00	27,000.00	27,000.00	27,000.00	27,000.00	216,000
1105	5 Secrétaires	14,940.00	14,940.00	14,940.00	14,940.00	14,940.00	14,940.00	14,940.00	14,940.00	119,520
1106	1 Comptable	8,400.00	8,400.00	8,400.00	8,400.00	8,400.00	8,400.00	8,400.00	8,400.00	67,200
1107	5 Plantons	-	10,500.00	10,500.00	10,500.00	10,500.00	10,500.00	10,500.00	21,000.00	84,000
1108	5 Manceuvres	-	10,500.00	10,500.00	10,500.00	10,500.00	10,500.00	10,500.00	21,000.00	84,000
1109	5 Gardiens	-	10,500.00	10,500.00	10,500.00	10,500.00	10,500.00	10,500.00	21,000.00	84,000
1110	6 Chauffeurs	-	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00	36,000.00	144,000
1201	Identification des besoins en renforcement des capacités des services techniques et des partenaires y incluses les communautés locales	-	-	-	-	-	-	-	10,500.00	10,500
1202	Identification des valeurs économiques, sociales et culturelles pour l'établissement d'une base de données et la préparation la préparation d'un guide sur les bonnes pratiques locales de gestion durable de la diversité biologique	-	-	14,000.00	-	-	-	-	-	14,000
1203	Identification et évaluation de mesures incitatives indirectes: prix, marché, épargne, diffusion de l'information	-	7,000.00	-	-	-	-	-	-	7,000
1204	Préparation d'un cadre institutionnel de prévention et de gestion des conflits sur les sites pilotes	-	7,000.00	-	-	-	-	-	-	7,000
1205	Identification d'un cadre consensuel d'accès équitable aux ressources et aux bénéfices tirés des aménagements	-	7,000.00	-	-	-	-	-	-	7,000
1206	Identification, caractérisation et cartographie des 12 sites pilotes	-	-	-	-	-	-	-	21,900.00	21,900
1207	Développement des ressources en eaux des bassins	-	-	-	-	-	-	-	21,000.00	21,000
1208	Développement d'un cadre de partenariat local au niveau des bassins versants entre les secteurs public, privé et la société civile	-	7,000.00	-	-	-	-	-	-	7,000
1209	Développement d'un projet pilote concerté d'aménagement agricole par bassin versant	-	14,000.00	-	-	-	-	-	-	14,000
1210	Développement de cinq projets pilotes concertés de défense et de restauration des terres agricoles par site pilote	-	7,000.00	-	-	-	-	-	-	7,000
1211	Développement de deux projets pilotes concertés, bilatéral et national, sur la récupération et l'aménagement de terres de parcours, par bassin versant	-	14,000.00	-	-	-	-	-	-	14,000
1212	Développement d'un projet pilote bilatéral et de deux	-	14,000.00	-	-	-	-	-	-	14,000

	projets nationaux d'aménagement des pêcheries par bassin versant									
1213	Développement d'un projet pilote de plantation économique par sie pilote	-	14,000.00	-	-	-	-	-	-	14,000
1214	Développement concerté d'un plan d'aménagement d'un habitat partagé	-	21,000.00	-	-	-	-	-	-	21,000
1215	Développement concerté d'un projet pilote sur l'apiculture par bassin versant	-	14,000.00	-	-	-	-	-	-	14,000
1216	Developpement d'un projet pilote d'élevage non conventionnel par bassin	-	15,000.00	-	-	-	-	-	-	15,000
1217	Capitalisation des expériences de gestion des ressources partagées/identification d'indicateurs appropriés	-	14,000.00	-	-	-	-	-	-	14,000
1218	Préparation du programme de travail de la phase 2 en intégrant les indicateurs de suivi, de performance et d'impact du projet	-	14,000.00	-	-	-	-	-	-	14,000
1301	Expert GIS/Suivi et évaluation	-	2,520.00	2,520.00	2,520.00	2,520.00	2,520.00	2,520.00	5,040.00	20,160
1302	Expert en gestion et aménagement des ressources en eau	-	2,520.00	2,520.00	2,520.00	2,520.00	2,520.00	2,520.00	5,040.00	20,160
1303	Expert en gestion durable des ressources en terres	-	2,520.00	2,520.00	2,520.00	2,520.00	2,520.00	2,520.00	5,040.00	20,160
1304	Expert en formation/Promotion de la participation communautaire	-	2,520.00	2,520.00	2,520.00	2,520.00	2,520.00	2,520.00	5,040.00	20,160
1601	Missions de l'UCR	-	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	5,000.00	20,000
1602	Missions de terrain sur les sites	-	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00	100,000.00	400,000
2101	Mise en œuvre des mesures incitatives indirectes et de programme de renforcement des capacités des structures techniques et locales	-	3,333.00	3,333.00	3,334.00	3,750.00	3,750.00	3,750.00	3,750.00	25,000
2102	Mise en œuvre d'un programme de developpement des ressources en eaux des bassins	-	6,667.00	6,667.00	6,666.00	7,500.00	7,500.00	7,500.00	7,500.00	50,000
2103	Mise en œuvre de trois projets pilotes de protection et de restauration des terres agricoles par bassin	-	-	30,000.00	30,000.00	22,500.00	22,500.00	22,500.00	22,500.00	150,000
2104	Mise en œuvre de deux projets pilotes, bilatéral et national, de protection et de restauration des terres pastorales par bassin	-	-	10,000.00	10,000.00	7,500.00	7,500.00	7,500.00	7,500.00	50,000
2105	Mise en œuvre d'un projet pilote bilatéral et de deux projets nationaux de développement des pêcheries par bassin	-	-	15,000.00	15,000.00	11,250.00	11,250.00	11,250.00	11,250.00	75,000
2106	Mise en œuvre de trois projets pilotes de plantations économiques par bassin	-	-	14,000.00	14,000.00	10,500.00	10,500.00	10,500.00	10,500.00	70,000
2107	Mise en œuvre d'un projet pilote de gestion de la biodiversité commune (faune, flore, habitat)	-	-	12,000.00	12,000.00	9,000.00	9,000.00	9,000.00	9,000.00	60,000
2108	Mise en œuvre d'un projet pilote sur le développement de l'apiculture par bassin	-	-	6,000.00	6,000.00	4,500.00	4,500.00	4,500.00	4,500.00	30,000
2109	Mise en œuvre d'un projet pilote d'élevage non	-	-	6,000.00	6,000.00	4,500.00	4,500.00	4,500.00	4,500.00	30,000

	conventionnel par bassin									
3101	Participation échanges et sessions de formation	-	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	5,000.00	20,000
3102	Frais de voyage	-	3,750.00	3,750.00	3,750.00	3,750.00	3,750.00	3,750.00	7,500.00	30,000
3201	Cadre institutionnel et légal et politiques environnementales	-	-	-	-	5,000.00	-	-	-	5,000
3202	GIS et bases de données	-	-	-	-	-	-	-	5,000.00	5,000
3203	Indicateurs d'impacts biologiques et socio-économiques du projet	-	5,000.00	-	-	-	-	-	-	5,000
3204	Prévention et gestion des conflits	-	5,000.00	-	-	-	-	-	-	5,000
3205	Mobilisation des ressources financières et les procédures de gestion	-	-	5,000.00	-	-	-	-	-	5,000
3206	Nouvelles alternatives de gestion durable des ressources et les bonnes pratiques	-	-	5,000.00	-	-	-	-	-	5,000
3207	Planification de projets et approches participatives	-	-	-	5,000.00	-	-	-	-	5,000
3208	Identification, caractérisation et cartographie des sites pilotes	-	-	-	-	-	-	-	6,000.00	6,000
3209	Transhumance transfrontalière	-	-	-	-	-	-	-	6,000.00	6,000
3210	Cadre de partenariat local et accès équitable aux ressources	-	6,000.00	-	-	-	-	-	-	6,000
3211	Etablissement d'une base de données et préparation d'un guide sur les stratégies locales de conservation de la diversité biologique	-	-	6,000.00	-	-	-	-	-	6,000
3212	Accords bilatéraux de conservation des habitats partagés et de la diversité biologique/Identification d'indicateurs appropriés sur les expériences réussies de bonnes pratiques de gestion des ressources	-	-	6,000.00	-	-	-	-	-	6,000
3213	Preparation of phase 2 including monitoring and evaluation	-	-	-	6,000.00	-	-	-	-	6,000
3214	Planification et implantation des activités du projet	-	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	10,000.00	40,000
3215	Participation aux rencontres	-	8,750.00	8,750.00	8,750.00	8,750.00	8,750.00	8,750.00	17,500.00	70,000
3301	Lancement du projet	-	-	-	-	-	-	-	7,000.00	7,000
3302	Développement des ressources hydrauliques	-	-	7,000.00	-	-	-	-	-	7,000
3303	Gestion des ressources naturelles et aménagement intégré des écosystèmes	-	-	7,000.00	-	-	-	-	-	7,000
4101	Fournitures de bureau	-	3,750.00	3,750.00	3,750.00	3,750.00	3,750.00	3,750.00	7,500.00	30,000
4102	Documentation, programmes informatiques	-	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	10,000.00	40,000
4103	Equipements mobiliers	25,000.00	-	-	-	-	-	-	-	25,000
4201	5 véhicules 4x4: 4 PU et 1 Swagon	43,750.00	43,750.00	43,750.00	43,750.00	-	-	-	-	175,000
4202	1 véhicule de liaison	3,750.00	3,750.00	3,750.00	3,750.00	-	-	-	-	15,000
4203	13 Motocyclettes	5,112.00	8,125.00	8,125.00	8,125.00	-	-	-	3,013.00	32,500
4204	Equipements informatiques: ordinateurs, ..	18,750.00	18,750.00	18,750.00	18,750.00	-	-	-	-	75,000
4205	Equipements audio-visuels: caméras, projecteurs, téléviseurs, vidéo, ..	3,125.00	3,125.00	3,125.00	3,125.00	-	-	-	-	12,500

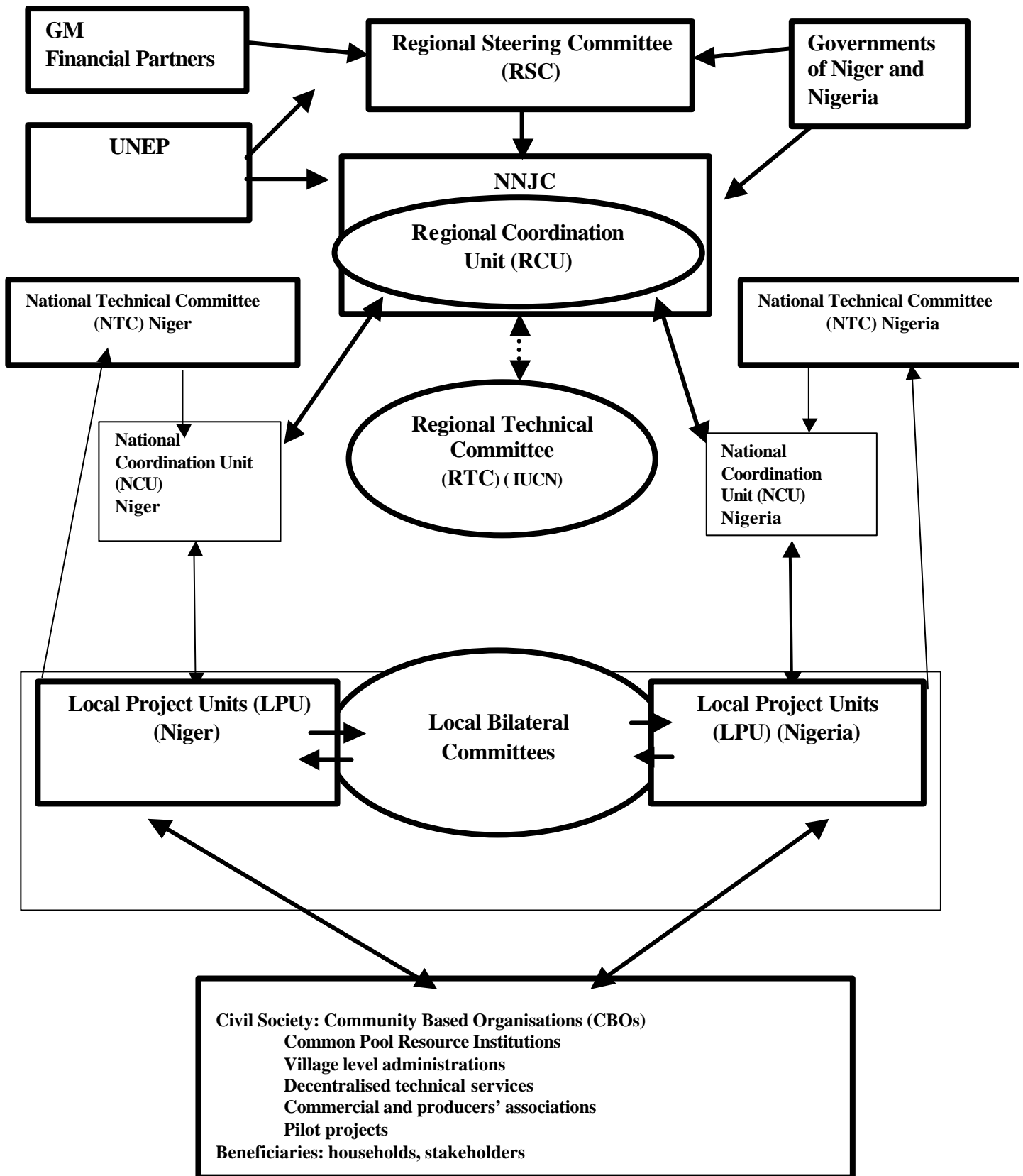
4206	Equipements SIG et carotgraphie	3,750.00	3,750.00	3,750.00	3,750.00	-	-	-	-	15,000
4207	Equipements de reprographie	2,500.00	2,500.00	2,500.00	2,500.00	-	-	-	-	10,000
4301	Locaux/Bureaux	-	-	-	-	-	-	-	-	0
5101	Maintenance des équipements, ordinateurs	536.00	536.00	536.00	536.00	714.00	714.00	714.00	714.00	5,000
5102	Maintenance des équipements audio-visuels	804.00	804.00	804.00	804.00	1,071.00	1,071.00	1,071.00	1,071.00	7,500
5103	Maintenance des équipements SIG et Cartographie	268.00	268.00	268.00	268.00	357.00	357.00	357.00	357.00	2,500
5104	Maintenance des véhicules	4,500.00	4,500.00	4,500.00	4,500.00	10,500.00	10,500.00	10,500.00	10,500.00	60,000
5105	Maintenance des motocyclottes	2,250.00	2,250.00	2,250.00	2,250.00	5,250.00	5,250.00	5,250.00	5,250.00	30,000
5106	Maintenance des locaux	333.00	333.00	333.00	333.00	167.00	167.00	167.00	167.00	2,000
5107	Maintenance des équipements de reprographie	937.00	937.00	937.00	937.00	2,188.00	2,188.00	2,188.00	2,188.00	12,500
5109	Carburant	10,886.00	10,886.00	10,886.00	10,886.00	25,401.00	25,401.00	25,402.00	25,402.00	145,150
5110	Electricité, eau	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00	50,000
5201	Rapports et audits	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	15,000
5202	Publication de bulletins d'informations	2,188.00	2,188.00	2,188.00	2,188.00	2,187.00	2,187.00	2,187.00	2,187.00	17,500
5203	Production de cartes thématiques	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	20,000
5204	Diffusion des rapports	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	10,000
5301	Communications	3,750.00	3,750.00	3,750.00	3,750.00	3,750.00	3,750.00	3,750.00	3,750.00	30,000
5302	Frais postaux	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	4,000
5302	Frais fiscaux, Dédouanement, Freit, Taxes	-	-	-	-	-	-	-	-	0
5303	Support aux Services	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	1,875.00	15,000
5401	Réception	2,250.00	2,250.00	2,250.00	2,250.00	1,500.00	1,500.00	1,500.00	1,500.00	15,000
5501	Missions d'évaluations internes	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	36,000
5504	Auto-évaluations communautaires/Comités locaux	5,430.00	5,430.00	5,430.00	5,430.00	5,430.00	5,430.00	5,430.00	5,430.00	43,440
5505	Frais de missions	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00	6,250.00	50,000
5581	Implementation services (ICRISAT)	12,500.00	12,500.00	12,500.00	12,500.00	12,500.00	12,500.00	12,500.00	12,500.00	100,000
TOTAL GENERAL		267,309	581,152	539,152	500,152	412,785	407,785	407,786	629,029	3,745,150

Annex 2: Project Implementation according to phases and outputs

Sub-components and Outputs	Phase 1 (4 years)				Phase 2 (4 years)			
Sub-component 1.1. Legal and institutional framework for Sub-regional coordination								
1.1.1. Review and harmonization of legal instruments and regulations								
1.1.2. Examination and reform of Maiduguri/Sokoto and Abuja Agreements								
1.1.3. Institutional evaluation and capacity building of NNJCC in place								
1.1.4. Strengthening of institutions and processes for management of NRM including prevention of conflicts								
Sub-component 1.2. Strengthening of sub-regional, catchment, an community level institutions and processes								
1.2.1. Development and implementation of MOU between partners								
1.2.2. Building democratic, accountable community-based organization								
1.2.3. Decision chain, structure and process agreed for implementing projects								
1.2.4. Application of improved knowledge of natural ecosystems								
1.2.5. Strengthening Agreements on transborder transhumance routes, facilities and access to water and grazing								
Sub-component 1.3. Coordinated financing of project activities								
1.3.1. Common Fund and administrative protocol agreed and in place								
1.3.2. Capacity building for financial administration at sub-regional, catchment and local level								
1.3.3. Procedures and capacity for preparing and submitting pilot projects established								
Sub-component 2.1. Enhancing use of research-based knowledge of natural ecosystems of the shared catchments								
2.1.1. Inventories and map of biodiversity, land and water resources for 4 catchments set up and in use								
2.1.2. Analysis of population, livestock and land use dynamics								
2.1.3. Hydrlogical analyses and modeling of catchments								
2.1.4. Drought occurrence, impact analysis and prediction modeling								
2.1.5. Establishment/strengthening of GIS capability in NNJCC								
2.1.6. Identification of biophysical and socio-economic indicators of project impact agreed and in use								
Sub-component 2.2. Integration of local knowledge and values of ecosystem services into NRM								
2.2.1. Community valuation of biological resources								
2.2.2. Incorporation of local values and knowledge into project database								
2.2.3. Improved use of local knowledge and values in planning and programme activities								
2.2.4. Review of indirect incentives completed by NNJCC, strategies for strengthening agreed								
Sub-component 2.3. Identification /promotion of good practices for managing equitable access to, and conflict of interest in, natural resources and their benefits								
2.3.1. Building local consensus on equity in access to and benefits from sustainable management of natural resources								
2.3.2. Strengthening local institutions for equitable management of conflicts of interest, consultation, consensus								
2.3.3. Strengthening local institutions for equitable management of access to common pool resources								

Sub-components and Outputs	Phase 1 (4 years)				Phase 2 (4 years)			
2.3.4. Community-based plans for improved management of degraded areas prepared and initiated								
2.3.5. Community-based plans for biodiversity conservation prepared and initiated								
Sub-component 2.4. Establishment of sub-regional mechanism for recording, exchanging and disseminating technologies, good practices and experiences								
2.4.1. Establishment of database on good practices at NNJCC								
2.4.2. Dissemination through bulletins, guides, website								
2.4.3. Capitalisation of project experiences in natural resource conservation								
Sub-component 3.1. Extension of public involvement in process of planning and implementation to all stakeholders and provision of direct incentives for community participation in project activities								
3.1.1 Development of partnerships between public and private sectors and civil society								
3.1.2. Identification of other stakeholder interest and initiation of dialogue in multi-stakeholder policy fora								
3.1.3. Development and implementation of capacity building programme for technical services and local partners								
3.1.4. Effective participation in community management plans of all stakeholders								
Sub-component 3.2.. Implementation of sub-regional and community-based plans for conservation and shared use of water resources								
3.2.1. Development and initiation of transboundary water management plans								
3.2.2. Conduct of feasibility studies of hydraulic development schemes								
3.2.3. Schemes initiated within scope of Water Management Plans								
3.2.4. Good practices (water management) identified, promoted and implemented								
3.2.5. Re-vegetation of catchment surfaces at risk from erosion								
3.2.6. Fishery development plans agreed and implemented in each catchment								
Sub-component 3.3. Implementation of sub-regional and community-based plans for conservation and shared use of land resources								
3.3.1. Bilateral protocols, initiation of regulatory measures for conservation of common habitats and biodiversity								
3.3.2. Development and implementation of catchment management plans for ecosystem management								
3.3.3. Community-based management plans within framework partnership with local communities developed and initiated								
3.3.4. Community-based surveys of known and available practices for sustainable management of natural resources on common and private lands								
3.3.5. Identification of new and profitable alternatives for sustainable NRM and livelihoods, tested, evaluated, disseminated and promoted								
Sub-component 3.4. Taking forward learning, experience and activities on participatory and sustainable management into Phase 2.								
3.4.1. Review of using learning and experience for flexible planning and project management practice								
3.4.2. Work Programme for Phase 2: Up- and out-scaling of natural resource management planning, regulation and experience from pilot sites agreed								

ANNEX 3. Project Organigramme



ANNEX 4:

**UNEP
INVENTORY OF NON-EXPENDABLE EQUIPMENT PURCHASED AGAINST UNEP PROJECTS
UNIT VALUE US\$1,500 AND ABOVE AND ITEMS OF ATTRACTION**

As at _____

Project No. _____

Project Title _____

Implementing Agency: _____

Internal/SO/CA (UNEP use only) _____

FPMO (UNEP) use only) _____

Description	Serial No.	Date of Purchase	Original Price (US\$)	Present Condition	Location	Remarks/recommendation for disposal

The physical verification of the items was done by:

Name: _____

Signature: _____

Title: _____

Date: _____

ANNEX 5A: FORMAT FOR CASH ADVANCE STATEMENT

Cash advance statement

Statement of cash advance as at

And cash requirements for the quarter of

Name of cooperating agency /

Supporting organization

Project No.

Project title

Cash statement

1. Opening cash balance as at US\$ _____

2. Add: cash advances received:

Date	Amount
.....
.....

3. Total cash advanced to date US\$ _____

4. Less: total cumulative expenditures incurred US\$ (_____)

5. Closing cash balance as at US\$ _____

Cash requirements forecast

6. Estimated disbursements for quarter ending US\$ _____

7. Less: closing cash balance (see item 5, above) US\$ (_____)

8. Total cash requirements for the quarter US\$ _____

Prepared by _____

Request approved by _____

Duly authorised official of cooperating agency/ supporting organisation

ANNEX 5B: FORMAT OF QUARTERLY PROJECT EXPENDITURE ACCOUNTS FOR SUPPORTING ORGANIZATIONS

Quarterly project statement of allocation (budget), expenditure and balance (expressed in US\$) covering the period to

Project No. Supporting Organization

Project title:

Project commencing: (date) Project ending: (date)

Object of expenditure by UNEP budget code	Project budget		Expenditure incurred				Unspent balance of budget	
	Allocation for year.....		For the quarter		Cumulative expenditures this year		Allocation for year	
	m/m (1)	Amount (2)	m/m (3)	Amount (4)	m/m (5)	Amount (6)	m/m (7)	Amount (2)-(6)
1100 Project personnel								
1200 Consultants								
1300 Administrative support								
1400 Volunteers								
1600 Travel								
2100 Sub-contracts								
2200 Sub-contracts								
2300 Sub-contracts								
3100 Fellowships								
3200 Group training								
3300 Fellowships								
4100 Expendable equipment								
4200 Non-expendable equipment								
4300 Premises								
5100 Operation								
5200 Reporting costs								
5300 Sundry								
5400 Hospitality								
99 GRAND TOTAL								

Signed: _____

Duly authorized official of supporting organization

NB: The expenditure should be reported in line with the specific object of expenditures as per project budget

ANNEX 6A: Format of Half-Yearly Progress Report to GEF

1. IDENTIFIERS

Country:

Project title:

Focal Area:

Implementing Agency:

GEF Funding:

Co-funding:

2. FINANCIAL STATUS

(Commitment and disbursement data as of the date of the report).

3. IMPLEMENTATION PROGRESS

(Statement of progress of the project components in relation to agreements or plans. Assessment of Overall Status. Report on the reasons, in the event of delays, cost over-run or positive deviations).

4. ACHIEVEMENT OF PROJECT ACTIVITIES

(Assessment of likelihood that project objectives will be achieved).

5. SPECIFIC ASSESSMENT OF FACTORS RELATING TO THE BIODIVERSITY FOCAL AREA

ANNEX 6b Format for Half Yearly Progress Report to UNEP

as at 31 March, 30 June, 30 September and 31 December

Implementing Organization: _____

Project No: _____

Project Title: _____

Reporting Period: _____

1. Project Personnel required (Task Manager/Project Coordinator and Administrative Assistants)

Name / Functional Title	Nationality	Duration of Contract	Fee (in US\$)	Brief Terms of Reference	Object of Expenditure (code per the budget e.g 1101, 1301 etc..)

2. Experts/Consultants required:

Name / Functional Title	Nationality	Duration of Contract	Fee (in US\$)	Brief Terms of Reference	Object of Expenditure (code per the budget e.g 1201, 1202 etc..)

3. Sub-contracts required:

Name and Address of Organisation	Object of Expenditure (code per the budget e.g 2201, 2301 etc..)

4. Major items of equipment ordered: (Value over \$1,500)

Please attach to the 2nd quarter (April - June) and 4th quarter (Oct - Dec) progress reports an **inventory** of all non-expendable equipment, indicating date of purchase, description, serial number, quantity, location, cost and remarks, and for vehicles, give mileage report (see separate inventory list format).

5. Status of the implementation of the activities listed under **WORKPLAN** in the project document, and status of documents, reports, manuals, guidelines, etc.

(a) List actual activities/outputs* **completed/produced** under the following headings where appropriate:

(Please tick appropriate box)

(i) **Meetings** (envisaged under the project)

Intergovernmental (IG) Mtg Expert Group Mtg Training/Seminar Workshop Others

Title _____

Venue and
Dates _____

Convened by _____ Organized by _____

Report issued as doc. no.
/symbol _____ Languages _____ Dated _____

For Training Seminar/Workshop, please indicate: No. of participants _____ and attach **Annex** giving names and nationalities of participants.

Annex (Participants List, Quarterly Progress Report))

Name	Nationality

(ii) **Printed Materials**

Report to (IG) Mtg Others Technical Publication Technical Report

Title _____

Author(s)/Editor(s) _____

Publisher _____

Symbol
(UN/UNEP/ISBN/ISSN) _____

Date of publication _____ (when the above reports have been distributed, attach the distribution list).

(iii) **Technical Information** **Public Information**

Description _____

Dates _____

(iv) **Technical Cooperation**

Grants and Fellowships Advisory S Others (describe)

Purpose _____

Place and Duration _____

For Grants/Fellowships, please indicate:

<u>Beneficiaries</u>	<u>Countries/Nationalities</u>	<u>Cost (in US\$)</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

(b) Status of activities/outputs **underway**:

- (i) Meetings, seminars, workshops study tours, training courses, fellowships under preparation
- (ii) Status of documents, reports, manuals, guidelines being prepared
- (iii) Status of studies, surveys underway
- (iv) Status of implementation of other activities

6. Summary of the problems encountered in project delivery (if any)

7. Actions taken or required to solve the problems identified in (5) above

ANNEX 7: FORMAT FOR TERMINAL REPORT

**TERMINAL REPORT
(For External Projects Only)**

Implementing Organization _____

Project No _____

Project Title: _____

1. Project Needs and Results

Re-state the needs and results of the project.

2. Project activities

Describe the activities actually undertaken under the project, giving reasons **why some activities were not undertaken, if any.**

3. Project outputs

Compare the outputs generated with the ones listed in the project document.

List the actual outputs **produced but not included in previous Progress Reports** under the following headings

(Please tick appropriate box)

(a) **MEETINGS** (UNEP-convened meetings only)

Inter-governmental (IG) Mtg. Expert Group Mtg. Training Seminar/Workshop Others

Title: _____

Venue and
dates _____

Convened by _____ Organized by _____

Report issued as doc. No/Symbol _____ Languages _____

_____ Dated _____

For Training Seminar/Workshop, please indicate: No. of participants _____ and attach **annex** giving names and nationalities of participants.

(b) PRINTED MATERIALS

Report to IG Mtg. Technical Publication Technical Report Others

Title: _____

Author(s)/Editor(s) _____

Publisher _____

Symbol(UN/UNEP/ISBN/ISSN) _____

Date of publication _____

(When technical reports/publications have been distributed, attach **distribution list**)

(c) TECHNICAL INFORMATION

PUBLIC INFORMATION

Description _____

Dates _____

(d) TECHNICAL COOPERATION

Grants and Fellowships Advisory Services
Staff Missions Others (describe)

Purpose _____

Place and duration _____

For Grants/Fellowships, please indicate:

<u>Beneficiaries</u>	<u>Countries/Nationalities</u>	<u>Cost(in US\$)</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

(f) OTHER OUTPUTS/SERVICES

For example, Networking, Query-response, Participation in meetings etc.

4. Use of outputs

State the use made of the outputs.

5. Degree of achievement of the objectives/results

On the basis of facts obtained during the follow-up phase, describe how the project document outputs and their uses were or were not instrumental in realizing the objectives/results of the project.

6. Conclusions

Enumerate the lessons learned during the project execution. Concentrate on the management of the project, indicating the principal factors which determined success or failure in meeting the objectives set down in the project document.

7. Recommendations

Make recommendations to:

- (a) Improve effect and impact of similar projects in the future;
- (b) Indicate what further action might be needed to meet the project objectives/results.

8. Non-expendable equipment (value over US\$1,500)

Please attach to the terminal report a **final** inventory of all non-expendable equipment (if any) purchased under this project, indicating the following:

Date of purchase, description, serial number, quantity, cost, location and present condition, together with your **proposal** for the disposal of the said equipment.