

**Congo**  
**Congo Wildlands Protection**

---

Project Document  
March 1993



THE WORLD BANK

## **GEF Documentation**

**The Global Environment Facility (GEF)** assists developing countries to protect the global environment in four areas: global warming, pollution of international waters, destruction of biodiversity, and depletion of the ozone layer. The GEF is jointly implemented by the United Nations Development Programme, the United Nations Environment Programme, and the World Bank.

**GEF Project Documents** - identified by a green band - provide extended project-specific information. The implementing agency responsible for each project is identified by its logo on the cover of the document.

Global Environment  
Coordination Division  
Environment Department  
World Bank  
1818 H Street, NW  
Washington, DC 20433  
Telephone: (202) 473-1816  
Fax: (202) 522-3256

## CURRENCY EQUIVALENTS

Currency unit = CFA franc (CFAF)  
US\$1.00 = CFAF 270 (October 1992)<sup>a/</sup>

## WEIGHTS AND MEASURES

Metric system

## ACRONYMS AND ABBREVIATIONS

CAR	-	Central African Republic
GEF	-	Global Environment Facility
GET	-	Global Environment Trust Fund
GOC	-	Government of Congo
HPLF	-	Howletts/Port Lympne Foundation
MAB	-	Man and Biosphere
NEAP	-	National Environmental Action Plan
NGO	-	Non-Governmental Organization
PMU	-	Project Management Unit
TSC	-	Technical Steering Committee
UNDP	-	United Nations Development Programme
UNESCO	-	United Nations Education, Scientific and Cultural Organization
USAID	-	U.S. Agency for International Development

## FISCAL YEAR

January 1 - December 31

---

<sup>a/</sup> The CFA franc is tied to the French franc (FF 1.00 = CFAF 50) which is subject to a floating exchange rate.



**REPUBLIC OF CONGO**

**WILDLANDS PROTECTION AND MANAGEMENT PROJECT**

**GRANT AND PROJECT SUMMARY**

**Recipient:** The Government of Congo

**Beneficiaries:** Ministry of Economy, Finance and Planning, Ministry in charge of Protected Areas, and Ministry in charge of Science and Technology

**Amount:** 6.9 million SDR (\$US 10 million)

**Terms:** Grant

**Financing Plan:**

GEF	US\$ 10.1 million <sup>a/</sup>
USAID	US\$ 2.2 million
Peace Corps	US\$ 0.4 million
HPLF	US\$ 0.2 million
GOC	<u>US\$ 1.0 million</u>
<b>Total</b>	<b>US\$ 13.9 million</b>

**Economic Rate of Return:** not applicable

**Maps:** IBRD No. 23525 and 23526

---

<sup>a/</sup> of which a Project Preparation Advance (PPA) of US\$ 100,000 from the GEF, and a GET grant of US\$ 10 million.



## CONGO

### CONGO WILDLANDS PROTECTION

---

1. **Background.** Congo is a country with great ecological wealth. There are still many virtually untouched areas with considerable biological diversity and densities of rare wildlife. The forest covers 65% of the national territory (342,000 km<sup>2</sup>) and is subdivided into three main areas (the Congo Basin, the Niari, and the Mayombe-Kouilou). 20% of this forest has standing water during most of the year (North-East region). The remaining 35% of the territory is savannah. Congo's population is approximately 2.6 million, of which 60% is urbanized, which means that rural densities are generally extremely low.

2. The Government's environmental strategy has two main orientations: (a) ensure the rational and sustainable use of the country's productive resources, through the development and implementation of a nationwide natural resource management plan; and (b) preserve the country's biodiversity, through the establishment of a network of protected areas. The proposed project will be the main vehicle for biodiversity conservation, an objective over which national and global interests converge. The Government is further developing its strategy through two main planning exercises: (a) the Tropical Forest Action Plan (TFAP) which began in June 1990 and should be completed by beginning of 1993; it is being managed by the French Cooperation under FAO's oversight; and (b) the National Environmental Action Plan (NEAP) whose preparation began in September 1991 and which should be completed by mid-1993. The NEAP addresses the country's overall environmental problems and will incorporate the TFAP's conclusions into its action plan. One of the primary goals of the NEAP which concerns this project, is to recommend the appropriate institutional arrangements for a permanent structure in charge of national conservation activities.

3. Although there are 11 legally gazetted areas earmarked for conservation, thus far, conservation initiatives have been limited. The legal statutes of the gazetted areas differ, and none of them, except for Odzala National Park and Dimonika-MAB reserve, has benefitted from a rational conservation program or management plan. These 11 reserves cover roughly 1.5 million ha, or 4.4% of the national territory. In addition, the Nouabalé-Ndoki and the Lake Télé-Likoula-aux-Herbes sites, in the north of the country, have been identified as particularly important zones to conserve since they still contain primary closed forests and inundated forests with considerable numbers of large mammals. The addition of these two sites will bring the total amount of protected land to 3.5 million ha (just over 10% of the national territory). The Nouabalé-Ndoki site could become part of a larger conservation area which will be contiguous with the Dzanga-Sangha reserve in the Central African Republic (CAR) and the Lake Lobéké region in Cameroon, thus forming one of the largest closed forest systems in Africa.

4. **Project Objectives and Strategy.** The project's overall objective is to protect a significant amount of the Congo's biological diversity through: (a) continued monitoring of key biodiversity indicators, and systematic planning and coordination of conservation activities, at the national level; and (b) careful management of selected reserves, at the local level. This will ensure that the country's ecosystems, important in global terms, will be conserved. The project will be the first in a series on interventions for biodiversity conservation at the national and sub-regional level. The project, as such, is modest and to some extent experimental. The project will pursue a long-term strategy designed to build the necessary framework for effective biodiversity conservation in the Congo and will act as a catalyst for complementary biodiversity protection projects. The main thrust

of the strategy will be to establish a coherent system of reserve management through the development of: (a) appropriate institutions for all conservation activities, including a Trust Fund to contribute to the project financial sustainability; (b) rational management plans for reserves where plans are non-existent or inadequate; and (c) alternative activities for local populations to ensure the long-term protection of the reserves.

5. Project Description. At the national level, the project will lay the groundwork for a permanent structure in charge of all conservation activities by creating a Project Management Unit (PMU) and a Technical Steering Committee (TSC) to manage and monitor the project in the interim. The project will also support the capacity-building of the Direction in charge of protected areas, the National Herbarium, the National Geographic and Cartographic Center, and national NGOs. At the local level, the project will focus on five sites representative of the country's biodiversity: Nouabalé-Ndoki, primary closed forest; Conkouati, mixed gallery forest, savannah and mangrove swamp; Dimonika, mixed closed forest; Léfini, savannah and gallery forest; and Lake Télé-Likouala, inundated forest. Additional inventory and survey work will be carried out in Mt. Fouari, Mt. Nabemba-Garibenzam and other sites for possible inclusion at a later stage. In the five priority reserves, the project will support the development and execution of rational management plans, including alternative activities for local populations. The experience gained in these reserves will form the basis for developing management systems to be replicated over time in all other reserves.

6. Project Implementation. Responsibility for project implementation will be vested with the Project Management Unit which will report to the Ministry of Economy, Finance and Planning. Technical steering will be entrusted to the Technical Steering Committee, chaired by the Ministry in charge of protected areas and comprising all parties (including NGOs) involved in conservation activities. The PMU will oversee the execution of all project components, and, in support of these supervisory activities, will be directly responsible for all central tasks relating to: (a) planning and monitoring of conservation activities; and (b) development of the regulatory and institutional framework for these activities. In addition, it will execute the following components: (a) studies concerning the local populations, to be undertaken in close liaison with the individual reserve authorities; (b) training of high-level personnel; (c) information and sensitization campaigns; and (d) establishment of the Trust Fund. Two other executing agencies at the central level will be: (a) the National Herbarium for all floristic inventories and studies; and (b) the National Geographic and Cartographic Center for the treatment of maps. At the local level, daily management of project activities will be the responsibility of the individual reserves authorities, except for the field activities of the two centrally-managed components. In one area (Nouabalé-Ndoki), local project activities will be undertaken as part of a broader program coordinated by Wildlife Conservation International (an American NGO), and comprising other components financed by USAID under parallel arrangements. The above set up will ensure: (a) operational autonomy in daily project implementation, both at the national and local level; (b) adequate dialogue/interface with technical and policy-making bodies; and (c) sustainability of project actions.

7. Project Sustainability. The following features are specifically built into the project design to ensure institutional sustainability: (a) the central functions of the Project Management Unit, following the Mid-Term Review (PY3), will be transferred to the permanent structure in charge of conservation activities to be created based on the recommendations of the National Environmental Action Plan and on the experience gained during the first phase of project implementation; this structure will have national oversight of conservation activities, and will be administratively and financially autonomous; (b) within the national system, the local reserves authorities will be given autonomous statutes, with in particular legal possibility to embark on revenue generating activities and secure external funding; this will ensure that part of the resources generated locally will be used



locally both to contribute to recurrent expenditures and develop programs of alternative activities for the local populations; (c) the creation of the Trust Fund will enable external funds to be mobilized in the form of endowments; the latter will generate revenues to help cover part of future recurrent costs; and (d) executive staff, research specialists, reserve managers, guards and other support staff will undergo formal training in addition to the on-the-job coaching provided by technical assistance; the latter's responsibilities will be gradually phased out and transferred to the national staff; training and transfer of responsibilities, to be reflected in the terms of reference of the technical assistance, will ensure the capacity building required for national institutions and reserves management.

8. Lessons of Previous Bank/UN Involvement. To date, the only systematic conservation efforts undertaken in the Congo have been initiated within the framework of the Man and the Biosphere program in the area of Dimonika with UNDP/UNESCO sponsorship. The program started at the beginning of the 80s and led to the successful development of a local reserve system and important research findings. At present, however, this system is proving difficult to sustain, mainly because of encroachment by the local population and lack of resources to cover recurrent costs. This shortcoming is due mostly to the lack of alternative activities for the local population and the absence of self-generated revenues in the reserve. The best example of the Bank's involvement in conservation relevant to the Congo circumstances is in the CAR Dzanga-Sangha National Park which borders the proposed Nouabalé-Ndoki reserve. This on-going project is proving successful in restoring and protecting large populations of mammals as well as generating local funds through safari hunting and tourism, by developing appropriate institutions and involving local populations.

9. Rationale for GEF involvement. Given Congo's anticipated economic problems in the short-to-medium term, it is very unlikely that the Government will allocate adequate funds for the conservation of ecosystems that are of vital importance from a global viewpoint. The availability of grant funds will reinforce the Government's commitment to protect biodiversity, and will be a strong incentive to the Government to pursue conservation and related support actions. GEF financing will be limited to areas whose conservation has global significance and which receive no or insufficient external assistance.

10. Agreed Actions. Assurances obtained at negotiations are that the Government will: (a) organize a Mid-Term Review no later than June 30, 1995; and (b) no later than six months following the Mid-Term Review (i) enact the new legislation concerning protected areas, (ii) adopt the permanent structure to take charge of all conservation activities nationally, (iii) give appropriate legal statutes to all five priority project sites, (iv) complete deployment of the required government staff in these sites, and (v) establish the Trust Fund, all preceding measures under terms and conditions acceptable to the Bank and following adequate public consultations. As preliminary steps to the above, the Government will have, by June 30, 1994: (a) submitted a plan to review the legislation concerning protected areas, (b) taken the preliminary steps to gazette the priority project sites; and (c) started deployment of government staff in these sites along the agreed individual schedules. As conditions of Grant effectiveness, the Government will: (a) stop the issuance of new logging concessions in the project priority sites; (b) establish a Project Management Unit, as interim management structure for the project, under the tutelage of the Ministry of Economy, Finance and Planning; the Unit will cease to exist no later than six months after the Mid-Term Review, at which date the permanent structure is scheduled to take over; (c) select a Project Coordinator and two high level staff for the Project Management Unit, with qualifications and experience acceptable to the Bank, through competitive selection advertized in the local media; (d) establish a Technical Steering

Committee with a mandate and membership acceptable to the Bank to be chaired by the Minister in charge of protected areas, and a Peer Review Committee, consisting of three international experts with qualifications and experience acceptable to the Bank; (e) issue an appropriate legal instrument to grant full tax exemption to all project related activities, subject to existing national laws and regulations; and (f) deposit the amount of CFAF 5 million on the project account.

11. Environmental Impact. The project will greatly enhance the conservation of the country's biodiversity, thus having an overall positive environmental impact. The project will also enhance the training and education of Congolese in matters concerning the environment, thereby increasing the Government's awareness of environmental problems and capacity to manage the country's natural resources. The strengthening of government institutions associated with conservation matters will also generate a positive environmental impact. The environmental analysis undertaken as part of project preparation stated that the project will have an overall positive impact on the conservation of Congo's biodiversity. The analysis pointed out that, in the absence of the project, the biodiversity of the Congo will continue to deteriorate. The main issues raised in the environmental analysis concern the sustainability of the project actions following termination of project funding, the inclusion of other areas outside the GEF sites, and the allowance for subsistence hunting and alternative activities for local populations. The issue of sustainability is addressed in the project mainly by the creation of the Trust Fund. In addition, the creation of alternative economic activities for local populations and the involvement of international NGOs with a long-term interest in the area should aid the sustainability of the project. Additional sites for possible inclusion at a later date will be identified by the PMU, and inventories and surveys will be conducted. Management plans will only be developed in these areas after the permanent reserve management capacity is able to successfully manage the existing areas. To ensure environmental soundness in all project activities, all management plans and project activities will be subjected to an independent environmental assessment when necessary. The TSC will review all project activities and will decide on the necessary environmental assessments.

12. Benefits and risks. The main benefits to be derived from the project will be the conservation of unique ecosystems, with attendant preservation of biodiversity of global value. The project will give the Government the scientific and management cognizance to undertake further conservation actions. It will also help develop an appropriate regulatory and institutional framework, and establish a national system of reserves. This will furnish to the Government the capacity and tools to design and implement a coherent conservation policy.

13. The main risks associated with project implementation are largely outside project control. They concern: (a) the relative political instability of the country which is presently undergoing a movement towards democracy; and (b) the potential conflict with other activities, such as infrastructure building, logging, oil exploitation and agricultural development in the reserve areas, that will aim at short term economic development. Concerning the political risk, despite the volatility of the present political situation, the Government has continuously expressed commitment for conservation-oriented activities. The decision to adopt a comprehensive Law of the Environment in April 1991, and very recently to create a new ministry in charge of the environment, tourism and leisure with responsibility over protected areas, are testimony of the Government's commitment to preserving biodiversity and augurs well for the final institutional arrangements to be made in the area of conservation of natural resources. The issue of potential conflict for land use has already been partially addressed by the Government by agreeing to rapidly gazette the Nouabalé-Ndoki area, and

therefore prohibit logging in this area which is one of the last unassigned forestry concession. This represents a sign that the Government will accept the additional gazetting that may be required.

14. Other implementation risks concern: (a) the lack of coordination of field activities, which may lead to a number of isolated projects with their own rationale, rather than a coherent set of actions consistent with the national strategy; (b) the lack of participation by local populations in management and anti-poaching efforts in the reserves, preempting long-term sustainability; and (c) the weak financial situation of the Government to mobilize funds for long-term conservation of protected areas. These risks will be addressed under the project by: (a) developing the regulatory and institutional framework at central level; assistance for institution-building (in particular in the field of monitoring and supervision) will permit to effectively apply regulations and render the national institutions operational; this will ensure proper coordination of field activities; (b) local participation will be key to maintaining any long-term management system; thus support will go to establishing proper dialogue with local people and helping fund pilot projects which will offset the pressure in the reserves; and (c) the resources generated locally by the reserves and the establishment of the Trust Fund should contribute substantially to cover recurrent costs both in the reserves and at the central level. The Trust Fund will hope to attract other donor financing outside of the GEF.

#### Attachments

REPUBLIC OF CONGOWILDLANDS PROTECTION AND MANAGEMENT PROJECTEstimated Project Costs and Financing PlanA. Estimated Project Costs

	Local	Foreign	Total	Local	Foreign	Total	Foreign Exchange	Base Costs
	----CFAF Million----			-----US\$ Thousand----			-----%-----	
<u>National Level Components</u>								
1. Project Management	105	171	276	390	635	1,025	62	8
2. Consultancies and Studies	121	189	310	449	700	1,149	61	10
3. Trust Fund	32	49	81	117	183	300	61	2
4. Training (mgmt. unit)	125	159	284	464	590	1,054	56	9
5. CERVE (herbarium)	36	88	124	133	327	460	71	4
6. CERGEC (cartography)	10	82	92	37	303	340	89	3
7. Project Preparatory Advance	<u>7</u>	<u>20</u>	<u>27</u>	<u>25</u>	<u>75</u>	<u>100</u>	<u>75</u>	<u>1</u>
Subtotal	436	758	1,194	1,615	2,813	4,428	63	37
<u>Local Level Components</u>								
1. Nouabelé - Ndoki	396	476	872	1,467	1,765	3,232	55	27
2. Conkouati	227	299	526	840	1,107	1,947	57	16
3. Dimonika	112	129	240	416	476	892	53	7
4. Léfini	95	162	257	352	599	951	63	8
5. Lake Télé - Likouala	42	75	117	156	276	432	64	4
6. Others	<u>31</u>	<u>50</u>	<u>81</u>	<u>114</u>	<u>186</u>	<u>300</u>	<u>62</u>	<u>2</u>
Subtotal	903	1,191	2,094	3,345	4,409	7,754	57	64
<u>Total Baseline Costs</u>	<u>1,339</u>	<u>1,949</u>	<u>3,288</u>	<u>4,960</u>	<u>7,222</u>	<u>12,182</u>	<u>59</u>	<u>100</u>
1. Physical Contingencies	131	196	327	484	726	1,210	50	10
2. Price Contingencies	<u>57</u>	<u>81</u>	<u>138</u>	<u>209</u>	<u>301</u>	<u>510</u>	<u>59</u>	<u>4</u>
<u>Total Project Costs</u>	<u>1,527</u>	<u>2,226</u>	<u>3,753</u>	<u>5,653</u>	<u>8,249</u>	<u>13,902</u>	<u>59</u>	<u>114</u>

B. Financing Plan

GEF	US\$10,100,000 <u>a/</u>
USAID	US\$ 2,190,000
US Peace Corps	US\$ 410,000
HPLF	US\$ 220,000
Government	<u>US\$ 98,000</u>
<b>Total</b>	<b>US\$13,900,000</b>

a/ of which a US\$ 100,000 GEF Project Preparatory Advance and a US\$ 10 million GET grant.

REPUBLIC OF CONGOWILDLANDS PROTECTION AND MANAGEMENT PROJECTProcurement Arrangements 1/

<u>Item</u>	<u>ICB</u>	<u>LCB</u>	<u>Other</u>	<u>Parallel Financing 2/</u>	<u>Total</u>
----- US\$ Thousand -----					
1. <u>Civil Works</u>	-	480	780	-	1,260
	-	(330)	(720)	-	(1,050)
2. <u>Vehicles</u>	400	-	140	-	540
	(400)	-	(140)	-	(540)
3. <u>Goods and Equipment</u>	400	270	400	100	1,170
	(400)	(270)	(400)	-	(1,070)
4. <u>Technical Assistance</u>					
a. Short-Term	-	-	2,860	-	2,860
	-	-	(2,860)	-	(2,860)
b. Resident	-	-	1,360	960	2,320
	-	-	(1,360)	-	(1,360)
Subtotal	-	-	4,220	960	5,180
	-	-	(4,220)	-	(4,220)
5. <u>Training</u>	-	-	430	1,010	1,440
	-	-	(430)	-	(430)
6. <u>Incremental Operating Costs</u>					
a. Supplies and salaries 3/	-	-	2,276	-	2,276
	-	-	(1,648)	-	(1,648)
b. Others	-	-	1,936	-	1,936
	-	-	(1,040)	-	(1,040)
Subtotal	-	-	4,212	-	4,212
	-	-	(2,688)	-	(2,688)
7. <u>Project Preparatory Advance (PPA)</u>	-	-	100	-	100
	-	-	(100)	-	(100)
<u>Total</u>	<u>800</u>	<u>750</u>	<u>10,282</u>	<u>2,070</u>	<u>13,902</u>
	(800)	(600)	(8,698)	-	(10,098)

1/ Amounts in parentheses indicate GEF financing

2/ Parallel financing by other donors will be under their own procedures

3/ Salaries of incremental contractual and/or private personnel.

REPUBLIC OF CONGOWILDLANDS PROTECTION AND MANAGEMENT PROJECTDisbursement of GET Grant

<u>Category</u>	<u>US\$ '000 Equivalent</u>	<u>% of Expendit. To be Financed</u>
1. Civil Works	960	100%
2. Vehicles, Goods and Equipment	1,550	100%
3. Technical Assist. and Training	3,770	100%
4. Training <u>1/</u>	430	100%
5. Incremental Operating Costs		
(a) Fuel and Lubricants	360	60% up to Dec. 32, 1995 30% thereafter
(b) Other	2,060	100% up to December 1995 50% thereafter
6. Unallocated	870	
Total <u>2/</u>	<u>10,000</u>	

1/ As part of activities both of the PMU and other executing agencies.

2/ Total amount of GET Grant, excluding the US\$100,000 GEF Project Preparation Advance (PPA).

B. Disbursement Schedule

	<u>Bank Fiscal Year</u>					
	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
	-----US\$ million-----					
Annual	0.6	1.6	2.8	2.4	2.0	0.6
Cummulative	0.6	2.2	5.0	7.4	9.4	10.0

REPUBLIC OF CONGOWILDLANDS PROTECTION AND MANAGEMENT PROJECTTimetable of Key Project Processing Events

(a)	Time taken to prepare:	1.5 year
(b)	Prepared by:	Government and IBRD
(c)	First IBRD mission:	February 1991
(d)	Appraisal mission departure: <sup>1/</sup>	March 16, 1992
(e)	Negotiations:	October 26-30, 1992
(f)	Planned Date of Effectiveness:	March 31, 1993
(g)	Relevant PCRs and PPARs:	None

---

1/ Key staff for project preparation and appraisal were: Messrs./Mmes Jean-Claude Balcet (Senior Agricultural Economist/Task Manager), Karen Richardson (Ecologist), Amy Vedder (WCI), Serge van Outryve (AGRER) and Charles Doumenge (IUCN).

**REPUBLIC OF CONGO**

**WILDLANDS PROTECTION AND MANAGEMENT PROJECT**

**Project Management Unit**

**I. Personnel**

The Project Management Unit (PMU) would oversee all project-related activities and would coordinate and manage project-related activities at the national level. The PMU would be composed of:

- (a) a national coordinator, to be selected through competitive selection process advertized in the local media;
- (b) a national expert in charge of the monitoring and evaluation component and the central-level studies;
- (c) a national expert in charge of the technical follow-up of reserve-level activities; and
- (d) an internationally-recruited expert advisor to the national coordinator. The advisor to the national coordinator would: (a) assist in the supervision and coordination of project activities; (b) help prepare contracts and conventions; (c) assist in the Monitoring and Evaluation of the project; and (d) liaise with the research community. If the expert were Congolese, he/she would have to come from outside the ministries implicated in the project. The qualifications required would be minimum of ten years of field experience in Africa in general project planning and management, with qualifications in environmental management and socio-economic development. The advisor would also need a good command of computers and complete fluency in French.

**II. Studies and Consultancies**

The Project Management Unit would provide specialized consultancies and studies with the help of national and international experts, for the following purposes:

- (a) financial and accounting management of project activities;
- (b) development of a coherent regulatory and institutional framework for all conservation activities, which would form the basis of a permanent structure;
- (c) study of the bushmeat problem at the central level (i.e. urban consumption of bushmeat and urban markets for bushmeat);
- (d) development of a protocol for surveys of local populations and supervision of the execution of the surveys at the reserve level; and
- (e) development of a central level strategy for anti-poaching to be implemented at the reserve level.

In addition to the above studies/consultancies, the Project Management Unit would:

- (a) conduct the project Monitoring and Evaluation activities;
- (b) oversee the legal and technical engineering of the trust fund (see Annex 4);
- (c) help national NGOs capacity-build; and
- (d) promote sub-regional cooperation in the field of conservation.



**Project Management Unit (Ct'd)****III. Capacity-building of national Non-Government Organizations**

The project would provide support to national NGOs in the field of conservation to help build their capacity to implement conservation-related activities. This would be done through direct on-the-job training with the international NGOs associated with the project and through support from the Project Management Unit. This support would be used for:

- (a) developing the capacity of national NGOs to execute conservation-related activities including twinning local NGOs with international NGOs for the implementation of project activities at the reserve level;
- (b) providing conservation-oriented national NGOs access through the PMU to some of the necessary facilities and equipment to develop conservation programs; and
- (c) promoting national NGOs through seminars, workshops, conferences and short-term training.

**REPUBLIC OF CONGO**  
**CONGO WILDLANDS PROTECTION AND MANAGEMENT PROJECT**  
**Monitoring and Evaluation (M&E) Program**

I. **General Considerations**

A. **Goals and Scope of M&E Activities**

In view of the central project goal to document knowledge and experience gained in project implementation under the "rolling design" strategy adopted, M&E activities would be an integral part of the project implementation process. The pilot nature of some project components (including biological monitoring) will also require effective M&E capability to assure reliable measurement of project impact and results. Beyond this immediate objective, the project will aim more broadly at testing M&E procedures suitable for biodiversity conservation projects.

M&E activities will focus on three aspects of project implementation:

- institutional development, as the project represents a major vehicle to build coherent national capacity to manage conservation activities;
- biological composition, ecological conditions and status of key biological elements, as tracking these parameters can contribute to the fundamental knowledge base of tropical conservation practice; and
- socio-economic conditions and community participation issues, as these concern the prospects for local sustainability of conservation initiatives.

Within each subject area the M&E program will define indicators to be monitored, integrate existing information and define new data gathering requirements to measure relevant baseline parameters. Where appropriate, activities will identify control interventions and design appropriate sampling schemes, identify and analyze trends, and recommend management actions.

B. **Role of Central vs. Local Structures**

M&E activities will be executed within each reserve by the local management team with technical support, periodic review and coordination functions supplied at the central level by the PMU in collaboration with the National Herbarium (CERVE), the Geographic and Cartographic Center (CERGEC), utilizing specialized short-term technical consultations as needed.

(a) **Project Management Unit**

The PMU will assist local site authorities to define requirements for baseline studies, identify key "indicators" to be monitored and develop an appropriate schedule and format for reporting of M&E results. The PMU will commission special studies (e.g. of bushmeat marketing) as necessary and facilitate technical assistance for the design and application of monitoring and evaluation activities by domestic and international collaborating

agencies or institutions. Some critical elements of the PMU work program during PY1 are given below in section III.

The PMU will develop appropriate terms of reference for the Technical Steering Committee and ensure that this entity has an appropriate role in the definition and review of M&E programs and reports.

The project management staff at the PMU will identify key activities that should receive detailed attention from the Peer Review Committee during a given review cycle or mission so that cumulative knowledge and documentation of project methods and achievements can be achieved in addition to information on overall performance.

(b) Peer Review Committee

The purpose of the external Peer Review Committee to be established under the project is to provide periodic feedback to the PMU, the Government and the Bank on overall performance and progress toward achieving project objectives. The committee will use the data produced under the M&E program and report findings on an annual basis in a concise format addressing:

- current status with regard to proposed project objectives and activities;
- problems and delays in implementation and their proximate/ultimate causes;
- recommendations for mid-course alterations;
- analysis of implications of delays or proposed changes in specific activities with regard to overall project implementation schedules and performance; and
- issues and actions that require attention by Bank, Government or other program management staff to improve project performance.

(c) Technical Steering Committee

The Technical Steering Committee (TSC) represents the principal public forum for periodic review and evaluation of project performance. Comprised of membership from the DFF, the collaborating agencies, other relevant ministries, participating NGOs and the local site implementing units, the TSC will participate in the M&E process through regular (at least semi-annual) review of performance reports prepared by the PMU and special studies commissioned under the project. Prior to the project mid-term review, the TSC will review project performance against established goals for each of the site components. The TSC will review annual reports of the Peer Review Committee and address needs for mid course changes recommended by the Peer Reviewers or the PMU. The TSC in its role as an advisory body to the PMU and the site management authorities can recommend specific issues to be addressed by the M&E unit within PMU and its collaborating agencies and review results of special studies commissioned by the PMU to address such issues.

(d) Local level units

The local site authorities are the principal agents responsible for monitoring and evaluation of biological and ecological parameters relevant to project execution. They are also the units primarily responsible for basic data collection and documentation of on the ground project performance in the areas of: physical establishment of the protected areas, enforcement activities, community participation issues, and project related development enterprises. With participation of the PMU and review by the TSC, the local units will define the indicators to be monitored during project execution and agree on a reporting schedule and format acceptable to the

PMU. As required, the local site authorities will cooperate with the Peer Review Committee and the PMU in providing information on basic M&E activities undertaken at each of the project sites. Guidelines for relevant general issues to track in site level project execution are given below in section II. Some critical site-specific issues to be addressed by the local site monitoring program during the period preceding the project mid-term review are given in section IV.

## II. Categories of M&E Activities

Tracking project performance requires a clear definition of meaningful and measurable criteria against which progress toward achievement of general objectives can be assessed. Below are listed various categories of activities that pertain to conservation program design, establishment and management and some suggested "milestones" by which progress can be assessed.

### A. Legal/Institutional Framework and Capacity Building

#### (a) Legal and Institutional Framework

The legal and institutional framework will be critical to the development of a permanent structure in charge of all conservation activities. During the initial phases of the project the following indicators will be used to track project performance in the following areas:

- progress toward establishing the appropriate legal framework for creation and management of protected areas, regulation of hunting or game harvesting, and appropriate enabling legislation to create the institutional structures needed for long term effective management;
- participation in appropriate international conventions (e.g. becoming a party to the "Ramsar" Convention concerning maintenance and wise use of wetland resources);
- progress in drafting and enacting appropriate legal instruments (laws, decrees, declarations, bylaws) to gazette the principal project sites;
- collection of adequate information (legal and technical) to prepare the necessary legal instruments (e.g. formal boundary descriptions, land tenure assessments);
- establishment of review and advisory boards;
- preparation and approval of management plans;
- appointment and arrival in post of the key personnel (e.g. Project Coordinator); and
- preparation and approval of annual workplans, and fulfillment of reporting requirements.

#### (b) Capacity Building

Monitoring project performance with respect to meeting capacity building goals, will require tracking progress in three general areas: formal or professional education; informal and local level training; and public awareness programs.

Indicators for PY1 will include tracking milestones of progress such as:

- identification of formal and informal training needs;
- development of training program and schedule;
- selection of candidates;
- identification of counterpart staff or constituents;
- measure of impact of on-going and new educational activities on attitudes and perceptions of target constituents; and
- public participation in awareness programs and the effect on media coverage of conservation related enterprises.

**B. Biological Monitoring and Protected Area Management**

(a) General Biological Features

The overriding question to be answered is if the project activities promote improved conservation of biological diversity on the national scale and at the project sites. One of the principal objectives of baseline studies is to define and delineate boundaries of core zones, buffer zones and other land management units within and adjacent to the project sites that will be effective for long term management and conservation of biological diversity.

Key activities to be addressed and monitored to track progress toward this goal include:

- the assessment of status and distribution of target fauna and flora;
- identification of fragile ecosystems and special features;
- mapping of land cover and habitat distribution (Beta diversity);
- execution of faunal and floral inventories (Alpha diversity); and
- measurement of hydrological cycles and climatic parameters as these relate to ecological stability of the sites.

(b) Protected Area Management

(i) Core conservation areas

Achievements concerning management of these areas during the initial project phase will be monitored by evaluating progress toward:

- definition and delineation of core areas or wildlife sanctuaries and buffer zones and other "special use" zones are identified and approved;
- the development and execution of appropriate management plans;

- control of illegal hunting, as measured by the number of snares set, capture rate, or other signs of poaching or illegal activities;
- the frequency and effectiveness of patrolling (i.e. have sufficient staff been recruited and trained to protect core areas); and
- bringing forested tracts adjacent to core areas under appropriate management to allow for habitat continuity and to serve as dispersal sinks for wildlife populations resident in the core areas.

(ii) multiple-use areas

For the management of these areas during the initial phase, the following will be monitored by tracking whether:

- external boundary descriptions are prepared and approved and any proposed adjustments to existing boundaries have been identified and approved;
- subsistence hunting is being carefully regulated and poaching controlled;
- patrolling by locals recruited by the project has increased protection of wildland resources of buffer areas;
- collection of firewood has remained at sustainable levels in buffer areas; and
- the pace at which the regeneration of primary forest tree species occurred in logged areas in or adjacent to protected areas is adequate or not.

**C. Socio-economic Conditions and Community Participation**

(a) Socio-economic Conditions

(i) Hunting and Economic Opportunity

Hunting remains the preeminent male activity in the rural areas of Congo. The activity is basic to local subsistence and cash income. The reserve areas, if divided into "core" and "buffer" areas, with some hunting allowed for local populations in the latter, will have to find reasonable alternatives for men offering comparable revenues and community incentives.

Monitoring activities should include:

- following the level of bushmeat production by species and quantity for a small, representative sample in some communities in or around the reserves. Site staff will handle data collection and at least some preliminary analysis;
- tracking changes in consumption patterns of bushmeat in the urban centers, especially the viability of any proposed substitutes; and
- evaluating the success of management and protection measures through examples of infractions, fines, seizures and other evidence (such as traps and snares discovered).

(ii) Gender differences in economic activity

Rural activities are organized according to a sexual -- and in some cases a generational -- division of labor. Women produce the staple crops, such as manioc, taro and maize. They also bring in regular cash revenues for the household through sale of products such as processed manioc, raphia palm wine, palm kernels and small game snared in garden traps. Preliminary studies and subsequent monitoring will have to establish the potential significance of local perceptions of nature and implications of gender differences for the actual adoption of "new activities". Women are typically responsible for the regular, intensive labor in some forms of agriculture and animal husbandry, as well as in food processing; men specialize in activities including hunting, fishing, heavy periodic labor (like forest clearing), managing trees for cash cropping, and generating revenues from outside labor opportunities.

Monitoring activities should include:

- resource generating activities specifically tailored to women, such as improved conditions for production, processing and marketing staple crops for the household and market; and
- resource generating activities specifically tailored to men, such as "new" cash crops and sustainable forms of hunting.

N.B.: If appropriate, some attention could be given to generational differences in activities. For instance, younger men may be turning to indiscriminate poaching for bushmeat merchants as an alternative to currently unavailable, periodic wage labor.

(iii) Perspectives for "alternative economic activities"

In general, rural productive activities in the proposed sites remain extensive, based on mixes of shifting agriculture, animal husbandry, hunting and gathering. The success of the range of "alternative activities" sponsored by the project will depend on means of breaking contemporary production constraints. Promoting "new" cash crops will depend on current markets, handling and transport capacities. The cluster of issues relating to transport problems appear crucial to prospects for future economic alternatives in the project sites. Infrastructure is poor, and not managed to encourage overland transport by road. Men, therefore, "rationally" focus on high value for low weight/bulk production of goods such as gold, bushmeat, fish and live animals. Otherwise they move themselves opportunistically as (seasonal) labor to urban marketplaces and to rural worksites (such as lumber concessions and construction sites). Women engage in localized food production and transformation, and small-scale commercialization of goods such as poultry, processed cassava and palm-wine.

Points that should be monitored for alternative activities include:

- local changes in the techniques, varieties and/or quantities produced in relation to new (and old) activities; and
- applications of applied research to local conditions and dissemination of technology for activities including sustainable management of capture fisheries, small livestock rearing, innovative forms of tropical animal husbandry, game ranching and aquaculture.

(b) Community Participation(i) "Traditional" community land tenure and use rights

Given official government "suppression" of communal land law, the project will have to effectively reformalize and reinstate the power of local tenure and usufruct rights as an integral part of the management program. The project should monitor the following:

- the recognition of local systems of regulation by the government and management authorities, including land use (for agriculture, etc.), arboriculture, hunting, fishing and gathering;
- statutes, reserve regulations and minutes of committee or local meetings will serve as written evidence of the "relegitimization" of community powers;
- the content of local regulations, covering hunting, fishing and gathering, including the exclusion or limitation of locations, periodicity, species, techniques, time of day (diurnal or nocturnal), immature or pregnant animals, certain plants or plant parts, etc.; and
- disputes or local litigation indicating the level of respect and enforcement of regulations by the communities.

(ii) Stimulating and sustaining community support and participation in wildlands management

Given the significant contemporary and potential future impact of the local communities on the sites, their role in management planning and implementation will be absolutely critical. For instance, ineffective incorporation of the communities in and around the Dimonika Reserve has already resulted in considerable local animosity without changing the heavy pressures on the resource. The community members will need to play roles on group and individualized bases in the regulation, surveillance and enforcement of sustainable resource use.

The program should monitor the following areas pertinent to community support and participation:

- evidence of community roles in enforcement of protection measures, such as banning certain methods of hunting; and
- periodic canvassing of community members to determine the level of satisfaction with the combination of management and local development efforts.

(iii) Information, education, negotiation and exchange of ideas

Indigenous knowledge and beliefs about natural resources are valuable for conceiving of and justifying measures. For instance, hunters have notions about the impact of hunting immature, female and pregnant animals on productivity. The following areas should be monitored:

- reserve reports regarding the design and operation of the dialogue with the local community members, including message content, community feedback, methodologies and periodicity;
- meeting minutes and changes in management based on negotiated revisions of program short-term or intermediate objectives; and
- periodic field verification of the information flows within the communities.



### III. Work Program at Central Level

#### A. PMU Work Program

Below is a partial list of key activities which need to be carried out under the responsibility of the PME during the first year (PY1) of project implementation to get the major components operational:

- creation of the administrative structure of the PMU and the project site authorities;
- establishment of the Technical Steering Committee with appropriate terms of reference and membership representing national and site specific implementing institutions;
- establishment of the Peer Review Committee with appropriate terms of reference and membership acceptable to the World Bank;
- development of a framework and tentative timetable for undertaking necessary legislative review toward gazettelement or revision of legislation concerning gazettelement of project sites;
- definition of training and institutional development goals and schedules, including needs for workshops, technical and advanced training and on-the-job coaching from the expatriate technical assistance;
- formulation of a strategy for promoting public awareness of conservation issues which takes advantage of special and unique features of the individual site programs;
- formulation of a plan for integration of the projects conservation goals into the framework of the National Environmental Action Plan currently being prepared; and
- definition of guidelines for community participation in site management and for development of program to promote alternative economic activities in local communities within and adjacent to project sites.

#### B. Project Launch Workshop

Once the project management staff are in post and work plans have been drafted, a Project Launch Workshop will be organized to bring together staff from the PMU, collaborating agencies such as the National Geographic and Cartographic Center (CERGEC), Mutuelles Congolaises d'Epargne et de Cr dit (MUCODEC), the National Herbarium (CERVE), and the site specific management units, to discuss the detailed work program for PY1. The M&E program will figure as a major items on the workshop agenda. The timing for such a workshop will depend on the schedule of recruitment and deployment of key personnel, and progress in preparation of workplans with clearly defined measurable goals and objectives. An appropriate target date for the workshop will be May 1993.

Output of the workshop will include:

- definition of baseline studies and indicators for measuring project achievements with regard to biodiversity related research, protected areas design and establishment, legal and institutional issues and community involvement;

- definition and adoption of a M&E schedule for the period preceding the mid-term project review;
- articulation of monitoring and evaluation activities and responsibilities between the national and individual site component levels;
- agreement on reporting formats and mechanisms among the representatives of the PMU, the collaborating agencies, and the site-specific project implementation units; and
- delineation of the role and responsibilities of the Technical Committee and the Peer Review Committee with regard to M&E activities.

#### IV. Orientations for Work Program at Reserve Level

Within most protected areas, few data exist for many of the variables which could be used as indicators of successful conservation action. During PY1, major emphasis will have to be placed on data collection in order to assess the effectiveness of the project activities in years to come. Detailed goals and indicators will be defined based on a dialogue between the local site management authorities, the PMU and the national institutes during the Project Launch Workshop scheduled within the first six months of project implementation.

Some preliminary aspects of project performance which have been identified for monitoring progress at each of the project sites during the period preceding the Mid-Term Review are given below.

##### A. Nouabalé-Ndoki

- status of poaching, particularly along international borders;
- track record of counterpart training;
- demographics and movement-migration patterns of primates;
- attitudes of local peoples toward the reserve;
- legal boundary description, demarcation and gazetting of the reserve including buffer zones or multiple-use areas; and
- progress on baseline botanical surveys and faunal elements in addition to large mammals.

##### B. Conkouati

- legal status of reserve and any necessary changes (internal zoning);
- EA's for any expansion of forestry or oil production activities;
- control of poaching and progress on buffer zone development of fuelwood production;
- monitor threats to aquatic ecosystems; and
- interactions with resident fishing communities and progress in involving local communities in project design and development.

**C. Dimonika**

- readjustment of internal zoning to reflect realistic ability to manage wildlife populations;
- progress in identifying buffer zone development alternatives;
- involvement of local people in reserve management decisions and their application; and
- success in transfer of administrative responsibility from UNDP/UNESCO to DFF.

**D. Léfini**

- possible reclassification of Lake Blue and Mbouambe areas to upgrade status for wildlife management;
- success in controlling grazing pressure on fragile upland savannahs and control of bushfires along gallery forest margins;
- realistic plans for ecotourism development with maximum financial returns to local resident communities; and
- monitor local attitudes toward the reserve (particularly the gorilla reintroduction program) and local participation in all aspects of reserve development.

**E. Lac Télé-Likouala**

- Congo to become a party to the "Ramsar" Convention before it can register the site;
- Ramsar registration of the site and appropriate national legal designation to precede major investment;
- delineation and legal description of boundaries including internal zonation to delineate "core zones" critical for seasonal (at least) protection of target species such as migratory waterfowl;
- progress on necessary research to accomplish the above;
- analysis of external threats to the wetland (if any) from potential disruption of the hydrological regime by upstream activities;
- initiating of studies on the current status and production potential (under a sound management regime) and prospects for enhancement of native fisheries before going into aquaculture alternatives (which have frequently been costly and economically nonviable elsewhere); and
- contacts with organizations such as Royal Society for Protection of Birds (RSPB) and International Commission for Bird Protection (ICBP) which have considerable African experience in wetland research and assisting development of locally managed wetland conservation programs to participate in data gathering and program planning for establishing this wetland conservation area.

**V. Concluding Remarks**

Further design and elaboration of monitoring and evaluation procedures should result from a participatory process involving PMU staff, representatives of collaborating agencies (e.g. CERVE, CERGEC), key personnel of collaborating institutions (e.g. WCI, IUCN, Howletts and Port Lympne Foundation, HELP). The composition of the Technical Steering Committee needs to be defined and the terms of reference for its operation developed and approved. Reporting formats and key indicators for performance tracking need to be identified, defined and agreed to by the participants and executing agencies.

The M&E program needs to be further refined as an integral component of the project in such a way that efforts expended in that realm contribute directly to enhanced project performance rather than detracting from the limited time that key project staff have to devote to accomplishing the major project objectives. To this end, the M&E process must be (and be perceived to be) an integral component of project execution. To this effect, the process must provide valuable feedback to project managers in helping them design their future workplans and program agendas. The process must also provide outputs which are a credible reflection of meaningful project achievements and help to identify future needs for project actions and investments beyond the four year period of GEF financing.

The recommendations in this annex should be taken as general guidelines for project management and implementing personnel in designing an appropriate M&E regime which satisfies their own needs for information to be used in project planning and execution. Results of the M&E process comprise a powerful and effective management tool for the implementing agencies in both assessing and communicating project successes. Reporting requirements for donors must be met in a way that both accurately reflects meaningful indicators of project performance and does not detract from efforts to meet core project goals and objectives. An efficient and effective M&E process is necessary to meet that goal.

REPUBLIC OF CONGOWILDLANDS PROTECTION AND MANAGEMENT PROJECTTrust Fund**I. Overview**

The level of project funding would only be sufficient to cover the initial activities at the central and reserve level. It is therefore crucial that the project leverage funds from other sources to cover long-term recurrent costs. The project would do this by creating a trust fund to provide a long-term, perhaps indefinite, future income stream. This would not only improve program stability by facilitating long-range planning, training and recruitment, but would also serve to build up absorptive capacity by spreading large grants over a longer period of time), small grants capacity (by "retailing" large grants to a range of smaller projects) and would institutionalize cooperation between the government sector, local communities and NGO's. The project would support the legal and technical engineering and associated publicity needed to establish the Trust Fund, but would not contribute to its financial endowment. The idea would be to attract outside donors to put money into the Trust Fund to cover part of the recurrent costs for conservation-related activities in Congo. The engineering of this fund would be done by World Wildlife Fund - US which has extensive experience in developing trust fund for conservation-related projects. The model for the trust fund would be developed based on consultations with the Government, NGOs and the GEF. The Trust Fund would be established by the Mid-Term Review of the project (PY3).

**II. Models and Related Issues****A. Other GEF Trust Fund Models**

Trust funds now being developed with assistance from the GEF in Bhutan, Papua New Guinea, Peru and Poland can provide models for various elements of the trust fund that would be created for Congo. These models share the following common features:

- (a) Trust funds are set up to finance agreed upon types of projects and activities;
- (b) funds are put into an endowment maintained by either
  - (i) recipient country central bank or treasury or
  - (ii) offshore fund managers, who will in either case have administrative and investment responsibility;
- (c) Board of trustees to include government, NGOs, scientific community and GEF representatives. Fiduciary and operational responsibility to lie with these trustees, who would approve project plans/recurrent costs and financial statements, and authorize disbursements for forthcoming periods (perhaps 12 months) ; and

- (d) Responsibilities of the World Bank would include: (i) assisting the planning and appraisal of initial project/costs to be financed by the trust; (ii) approving trust agreements and arrangements for security of fund, investment policies, accounting requirements, disbursement procedures, and arrangements for independent auditing; and (iii) periodic evaluation of the extent to which the trust is achieving its initial objectives, or possibly whether those objectives should be modified given changing circumstances or project achievements.

#### B. Issues

Issues that have needed to be worked out in the case of other GEF assisted trust funds, and whose solutions may have to be tailored to meet country- specific needs and conditions, include the following:

- (a) The precise composition of the trust fund board -specifically which government ministries and agencies are to be represented, how many seats or votes they are to receive, which NGO's, local community representatives and scientific experts are to be represented and how they are to be chosen;
- (b) Whether or not to have separate sub-account or mini-trust funds dedicated for different purposes, or for different geographical areas;
- (c) Whether (and in what way) to associate the trust fund with an existing government agency (or agencies), or whether to make it totally independent;
- (d) Whether the trust should have only a minimal administrative staff or whether it should have a variety of full-time positions for technical experts and administrators; and
- (e) What should be the criteria for project activities and other assistance that the trust fund will provide in the future, after funding of the initial project stages is completed.

Other issues that have arisen in the case of other GEF assisted trust funds and may also need to be dealt with here include:

- (a) A trustee generally cannot delegate fiduciary responsibility without permission from the original grantor; the World Bank might therefore require specific authorization from the GEF donors to establish such trust funds;
- (b) Establishing separate trust funds would represents a significant delegation of authority by the World Bank; it would be essential to determine whether operational safeguards, could be established to minimize the risks related to this delegation;
- (c) The extent to which project management and supervision could be delegated to the trustees, or retained by the World Bank, would require clarification; and
- (d) Acceptability to donors and recipients.

**REPUBLIC OF CONGO**  
**WILDLANDS PROTECTION AND MANAGEMENT PROJECT**  
**Training and Public Awareness**

**I. Overview**

1. In order to effectively conserve a system of protected areas in the Congo, and to ensure long-term support for management of conservation effort, there is a great need to further develop in-country professional and public capacity to recognize the importance of biological conservation and to undertake activities necessary for its implementation. Specific human resource constraints include the following:

- (a) an inadequate number of qualified and motivated professionals available to ensure conservation of protected areas:
  - (i) at the national level: lack of administrative and scientific experts with the means and experience to identify effective policies and strategies, and to enact long-term planning; and
  - (ii) at the level of protected areas: lack of conservators (6 currently employed nation-wide), guards (16 total), guides (none), and outreach personnel responsible for liaison with neighboring populations (none);
- (b) a lack of scholastic programs concerning environmental and conservation issues, at all levels (primary school, secondary school, and university/technical school); and
- (c) little sensitivity within the Congolese populace on the importance and relevance of biological conservation to their individual and collective (national) welfare.

**II. Existing Programs**

2. Many of the needs cited above are somewhat surprising given the strong emphasis placed on education and training in the Congo. Constraints exist because current professional training is largely restricted to theory, with no significant practical or field experience provided. At the same time, little or no conservation-related information is discussed with school or public audiences. However, the existing institutional capacity to educate both professionals and the general populace is great. A review of the training needs and the institutional capacity to undertake training and public awareness is being performed under the Protected Areas Conservation Strategy (PARCS) program executed by WCI, WWF, and AWF (African Wildlife Foundation). Existing institutions and their relevant programs include:

**A. Professional Training**

- (a) the Wildlife school at Garoua (Cameroon), where 24 Congolese have trained over the past 22 years to become technical experts, conservators and head guards--but training rarely includes field experience in forests or in Congo;
- (b) the Rural Development Institute (IDR) (Brazzaville), which offers three and six year programs in Forestry (including 2 relevant branches of Animal Biology and Plant Biology) and Agricultural Sciences--field work is required, though few real opportunities exist.

- (c) the University of Marien Ngouabi (Brazzaville), which offers three and four year degrees in Animal Biology, Plant Biology, and Environmental Law -- fieldwork consists of one week's visit in either program;
- (d) the National Forestry School (ENEF), at which forest technicians receive training in sylviculture and forest exploitation; and
- (e) a post-graduate training program in natural resource management (ATLAS), and in particular conservation, is planned to begin in late 1992 with USAID financing, offering Master's and Doctoral training in the United States; other bilateral assistance is irregularly available for conservation-related post-graduate education.

**B. Scholastic Training**

- (a) secondary schools, which have courses in biology and ecology; and
- (b) primary schools -- nothing is currently taught regarding biology or environment.

**C. Public Awareness/Extension/Outreach**

- (a) national-level media: television, radio, newspapers, films -- currently cover very little on environment or conservation;
- (b) Directorate on Environmental Law and Education -- is now testing a set of teaching modules on conservation for the region surrounding the Dimonika-MAB reserve under financing from the Mayombe Project;
- (c) rural extension programs: Literacy Centers (approx. 300), "Rural Progress" Centers, rural associations/groups, women's groups, the National Agricultural Extension Project (World Bank), other specific rural development projects -- little/no discussion of biological conservation or non-project natural resource management currently takes place;
- (d) particular conservation projects: Mayombe Project (UNESCO/UNDP), Odzala National Park (EDF), and Congo Forest Conservation Project (USAID/WCI at Nouabale-Ndoki) -- each plans a public awareness component of project; and
- (e) national NGOs: 2-3 conservation NGOs are presently being formed, one existing NGO focusses on women and natural resources -- all plan emphasis on public awareness.

3. *In sum, able institutions and public awareness mechanisms exist, yet do not function effectively in conservation education and training chiefly due to: (a) a lack of information readily available to them concerning biological conservation and protected areas; (b) inadequate means to give trainees field experience; and (c) little means for maintaining professional motivation once employed.*



**III. Project Strategy**

4. The project would adopt a strategy of:

- (a) linking existing professional training programs with protected area conservation activities and personnel, providing practical experience and frequently integrating biological, social and economic concerns in training;
- (b) establishing regular in-service workshops for protected area personnel, allowing for professional exchanges and discussion;
- (c) providing protected area information to public awareness programs, national and local; and
- (d) fostering dialogue with populations neighboring protected areas, integrating discussion of biological conservation and protected area management with alternative economic activities.

**IV. Project Training and Public Awareness Activities**

5. The above strategy would be implemented by the following principal activities of the project:

**A. Training of Conservation Professionals**

- (a) guards, guides: (i) periodic training workshop for all new personnel; (ii) on-site training via apprenticeship with project; and (iii) in-service workshop each year, in a protected area;
- (b) outreach specialists: (i) 2 training workshops at onset of project (initial orientation, followed by 2 months of field reconnaissance, consolidated with 2nd workshop); and (ii) in-service workshop each year, in a protected area;
- (c) protected area managers: (i) fieldwork training/research in protected areas to be associated with existing programs at Garoua, IDR, the university, and ENEF; (ii) regular lectures given by field personnel at the above in-country institutional training programs; and (iii) in-service workshops each year, in a protected area; and
- (d) decision-makers: (i) see above for basic formal training, and complementary bilateral financed post-graduate education (ATLAS); (ii) national level seminar each two years, possibly in conjunction with other environmental programs; and (iii) occasional short-courses or conference attendance overseas;

**B. Public Awareness/Outreach**

- (a) national: (i) supply information and materials to media: television, radio, newspapers, films; facilitate their collection of information on protected areas and conservation; and (ii) support informational activities of NGOs, via selected small grants program; and
- (b) rural, in areas surrounding protected areas: (i) develop outreach program for each focal protected area, details of which will be developed in initial two workshops; may include outreach via network of village "animateurs", local associations/groups, existing extension/literacy programs or projects, and/or with local schools; and (ii) integrate outreach program with facilitation of alternative economic activities, making clear the necessary linkages.

V. Training Schedule - Project Year 1

Project Year	Month	Activity
PY1	2	Meeting of all implementing agencies to evaluate training needs
	3	Training workshop for all new personnel;
	4	Training workshop for all new guards
	6	Training workshop for outreach specialists-initial orientation followed by 2 months of field reconnaissance
	6	Meeting of decision makers to determine candidates for ATLAS program and training needs for decision makers
	10	Workshop for reserve guards and outreach offices in Nouabalé-Ndoki and Conkouati
	12	National level seminar for decision makers in conjunction with the National Environmental Action Plan

**REPUBLIC OF CONGO****WILDLANDS PROTECTION AND MANAGEMENT PROJECT****Technical Assistance and Service Contracts****I. Overview of Resident Technical Assistance**

The GEF project would finance 272 person-months of resident technical assistance over the 4-year duration of project execution, including 128 person-months under GEF financing, 96 person-months under USAID financing, and 48 person-months under the financing of the University of Kyoto. The distribution would be as follows:

Component	Position	person-months	Period
Project Management Unit	- Advisor to the National Coordinator	36	yr. 1-3
Herbarium	- Botanist-ecologist	12	yr. 1
Map database/GIS	- Cartographer/GIS expert	6	yr. 1
Nouabalé-Ndoki	- Project Director (USAID/WCI)	48	yr. 1-4
	- Project Manager (USAID/WCI)	48	yr. 1-4
	- Primatologist (Kyoto University)	24	yr. 1-2
	- Sociologist (Kyoto University)	24	yr. 1-2
	- Total Nouabalé-Ndoki	144	
Conkouati	- Advisor to the Reserve Director	36	yr. 1-3
Dimonika	- Advisor to the Reserve Director	24	yr. 1-2
Léfini	- Periodic consultations		
Lake Télé	- Advisor to the Program Director	14	yr. 1-2

**II. Terms of Reference for Resident Technical Assistance financed under the GEF grant**

All resident technical assistants, in addition to their specific tasks presented below, will have to provide on-the-job training and coaching to the national counterpart staff, so that the latter can take over when the technical assistants leave at the end of their expatriate assignment.

**A. Advisor to the National Coordinator****Responsibilities:**

- (a) assist in supervision and coordination of project activities;
- (b) help prepare contracts and conventions;
- (c) assist in the Monitoring and Evaluation of the project; and
- (d) liaise with research community.

**Duration of appointment:** Three years

**Qualifications:** Field experience (minimum of ten years) in Africa in general project planning and appraisal/management, with strong qualifications in environmental management and experience in socio-economic development. Good command of computers and fluent in French.

**Procurement method:** Short-list competitive bidding amongst qualified firm/NGOs (PMU contract).

**B. Technical Assistant at the Herbarium (CERVE)****Responsibilities:**

- (a) assist in developing a scientific protocol for botanical inventories;
- (b) develop staff capacity to carry-out botanical inventories in the project sites;
- (c) assist in developing vegetation maps; and
- (d) train the national director and assistant in the identification of plant species and ecosystems.

**Duration of appointment:** One year

**Qualifications:** Expert botanist-ecologist associated with an internationally-recognized herbarium which would provide long-term technical support to the herbarium with at least 5 years of experience in Africa. Fluent in French and English.

**Procurement method:** Short-list competitive bidding amongst internationally recognized herbariums (CERVE contract).

**C. Technical Assistant to the Geographic Research and Cartographic Production Center (CERGEC)****Responsibilities:**

- (a) help strengthen existing map database and vegetation maps; and
- (b) provide training in GIS and satellite image analysis;

Duration of appointment: Six months

Qualifications: Cartographer with extensive experience in GIS and satellite image analysis, associated with an internationally-recognized institute which would provide long-term technical support to CERGEC. Fluent in French.

Procurement method: Short-list competitive bidding amongst specialized internationally recognized institute (CERGEC contract).

**D. Advisor to Reserve Director - Conkouati**

Responsibilities:

- (a) General management support/advice to Reserve Director;
- (b) supervision of studies and monitoring of local population;
- (c) supervision of the program to reintroduce chimpanzees; and
- (d) formulation of procedures and methods for the protection of the reserve.

Duration of appointment: Three years.

Qualifications: Minimum of five years experience managing national park/reserve/biological conservation projects in Africa. Sensitive to issues concerning local populations. Fluent in French.

Procurement method: Sole source procurement with the World Conservation Union (IUCN contract).

**E. Advisor to Reserve Director - Dimonika**

Responsibilities:

- (a) General management support/advice to Reserve Director;
- (b) supervision of studies and monitoring of local population;
- (c) development and supervision of alternative economic activities for local populations; and
- (d) formulation of procedures and methods for the protection of the reserve.

Duration of appointment: Two years.

Qualifications: Minimum of five years experience managing a national park/reserve/biological conservation project in Africa. Background in sociology/rural development. Sensitive to issues concerning local populations. Fluent in French.

Procurement method: Short-list competitive bidding amongst qualified firms/NGOs.

**F. Advisor to Program Director - Lake Télé**

**Responsibilities:**

- (a) General support/advice to Program Director;
- (b) assist in delineation of the limits of the site for gazetting;
- (c) development and supervision of alternative economic activities for local populations; and
- (d) formulation of procedures and methods for the protection of the reserve.

**Duration of appointment:** Fourteen months.

**Qualifications:** Minimum of five years experience managing a national park/reserve in Africa. Background in wetland ecology, with knowledge of rural development. Sensitive to issues concerning local populations. Fluent in French.

**Procurement method:** Sole source procurement with the World Conservation Union (IUCN contract).

**III. Main Technical Assistance and Services Contracts**

**A. Project Management Unit (PMU)**

<b><u>Description</u></b>	- 3 person-years of resident T.A.	\$	570,000
	- National personnel	\$	180,000
	- Short-term consultancies	\$	670,000
	- Technical Steering Committee	\$	80,000
	- National NGOs	\$	90,000
	- Operating expenditures	\$	<u>225,000</u>
	<b>Total</b>	\$	1,815,000

**Procurement method:** Short-list international competitive bidding

**B. National Herbarium (CERVE)**

<b><u>Description</u></b>	- 1 person-year of resident T.A.	\$	120,000
	- National personnel	\$	50,000
	- Short-term consultancies	\$	35,000
	- Equipment and Goods	\$	60,000
	- Training	\$	35,000
	- Operating expenditures	\$	<u>15,000</u>
	<b>Total</b>	\$	315,000

**Procurement method:** Short-list international competitive bidding

**C. National Geographic and Cartographic Research Center (CERGEC)**

<b>Description</b>	- 8 person-months of resident T.A.	\$	80,000
	- National Personnel	\$	35,000
	- Training	\$	40,000
	- Goods and Services	\$	80,000
	- Operating Expenditures	\$	<u>15,000</u>
	<b>Total</b>	\$	250,000

**Procurement method:** Short-list international competitive bidding

**D. Nouabalé-Ndoki**

<b>Description:</b>	- National personnel	\$	65,000
	- Equipment and goods	\$	55,000
	- Reserve management	\$	580,000
	- Short-term consultancies	\$	240,000
	- Laboratory analysis	\$	90,000
	- Alternative activities	\$	150,000
	- Operating expenditures	\$	<u>220,000</u>
	<b>Total</b>	\$	1,400,000

**Procurement method:** Sole-source procurement with Wildlife Conservation International (\$1,240,000) and the University of Kyoto (\$160,000)

**E. Conkouati**

<b>Description:</b>	- 6 person-years of resident T.A.	\$	530,000
	- National personnel	\$	430,000
	- Reserve management	\$	160,000
	- Equipment and goods	\$	220,000
	- Short-term consultancies	\$	210,000
	- Alternative activities	\$	110,000
	- Operating expenditures	\$	<u>130,000</u>
	<b>Total</b>	\$	1,790,000

**Procurement method:** Sole-source procurement with the World Conservation Union (IUCN)

**F. Dimonika**

<b>Description:</b>	- 2 person-years of resident T.A.	\$	200,000
	- National personnel	\$	125,000
	- Equipment and goods	\$	60,000
	- Reserve management	\$	110,000
	- Alternative activities	\$	65,000
	- Operating expenditures	\$	<u>100,000</u>
	<b>Total</b>	\$	660,000

**Procurement method:** Short-list international competitive bidding

**G. Lake Télé**

<u>Description:</u>	- 14 months resident T.A.	\$ 175,000
	- National personnel	\$ 130,000
	- Equipment and goods	\$ 85,000
	- Reserve management	\$ 40,000
	- Short-term consultancies	\$ 30,000
	- Alternative activities	\$ 50,000
	- Operating expenditures	\$ <u>50,000</u>
	<b>Total</b>	<b>\$ 560,000</b>

Procurement method: Sole-source procurement with the World Conservation Union (IUCN)

**IV. Short-term Technical Assistance and Training Contracts**

**A. Financial Audits** \$ 135,000

Procurement method: Short-list local competitive bidding

**B. Peer Review Committee** \$ 340,000

Procurement method: Short-list of international experts

**C. Procedure manuals** \$ 45,000

Procurement method: Short-list local competitive bidding

**D. Short-term consultancies** \$ 250,000

Procurement method: Short-list of national and international experts

**E. Trust Fund** \$ 340,000

Procurement method: Sole-source procurement with World Wildlife Fund

**F. Training** \$ 430,000

Procurement method: Short-list of national and international experts



REPUBLIC OF CONGOWILDLANDS PROTECTION AND MANAGEMENT PROJECTNouabalé-Ndoki Site**I. Background**

1. The Nouabalé-Ndoki site, extending over some 450,000 ha, is located in the north of the country on the border with the Central African Republic and Cameroon. It is adjacent to the Dzanga-Sangha reserve in the CAR. The site covers the "forest management unit" (UFA) of Nouabalé, although it also extends into the UFA of Kabo, Mokabi and Loundougou, thus incorporating the entire upper portion of the watersheds of the Nouabalé and Ndoki Rivers. The climate is equatorial, with annual precipitation of approximately 1,600 mm and an average temperature throughout the year of close to 25°C. Soils are sandy-textured hydromorphic laterite oxysols for the most part.

2. Gazetting the site as a reserve would endow the Congo with a reserve representative of primary closed forest, which is amongst the least known and studied in Central Africa. The area could also become part of a three-nation system reserves with CAR (the adjacent Dzanga-Sangha reserve, created in 1987) and Cameroon (the region northeast of Moloundou, around Lac Lobéké, now being discussed as a possible reserve).

**II. Fauna**

3. Nouabalé-Ndoki is one of the rare Central African forest areas whose fauna remains virtually intact. Population density of each species present is high relative to densities found in other similar forests. Several species of large mammals are found in abundance:

- (a) Elephants: The database built up from several studies carried out in the region indicate that the upper segment of the Ndoki basin shows a very high-density elephant population compared to other parts of Africa. Elephants are hunted in the area for their ivory, which is evacuated to Congolese cities via the rivers and to CAR over land.
- (b) Gorillas: Gorilla density recorded in the region is quite high, particularly in areas of abundant terrestrial herbaceous vegetation.
- (c) Chimpanzees: Observation has shown the population density of these animals to be extremely high east of the Ndoki River, much more so than in other parts of the northern Congo.
- (d) Diurnal primates: Ten species of diurnal primates have been observed in the site. Most commonly found are *Cercopithecus nictitans* and *Cerocebus albigena*.
- (e) Other large mammals: The population of large mammals east of the Ndoki River is very dense. Numerous duikers are found, particularly *Cephalophus sylvicultor*. The bongo (a large forest antelope) is rare throughout most of the area.

**III. Flora**

4. Forest cover consists principally of semi-deciduous *Sterculiaceae-Ulmaceae*, with large areas of malapa forest. River floodplains consist mostly of moist forests of raphia palm. Overall, the forest is mature, except for the relatively small area west of the Djéké River, where logging operations have taken place during the last 10 years.

**IV. Human Population**

5. At the present time, there are no permanent human settlements known in the area proposed for designation as the Nouabalé-Ndoki reserve. Logging operations have not taken place in the zone north of the Djéké River and east of the Ndoki. The region is accessible from several main points: Bomassa, Bon Coin, Makao, Bayanga, Balambok-Manasau and Lindjombo, the last three being located in the CAR. Average human population density in the entire zone, at less than 1 inhabitant/km<sup>2</sup>, is low.

6. Local populations around the proposed reserve (in particular in Bomassa, Bon Coin and Makao) have been involved in planning the reserve since its inception. The University of Kyoto research team has been working with the local populations since 1987. Several public consultations were held between the Government of Congo, the staff of the Congo Forest Conversation (CFC), the preparation team for this project and the local populations (pygmy and bantu). The outcome of these meetings showed a strong desire on the part of the local populations to create a reserve on the condition that they were invited to participate in defining the limits for the core and buffer zones of the reserve and in determining the wages for local employment. The local populations welcomed the CFC project and welcomed their participation in the management plan for the site.

**V. Existing Actions**

7. Nouabalé-Ndoki has recently become a focus of conservation efforts via the Congo Forest Conservation (CFC) project, jointly financed by USAID, Wildlife Conservation International (WCI), and the Government of Congo. This project, now being implemented by the Director of Fauna and Flora Conservation (DFFC) and WCI, is designed to plan, establish and manage a new nature reserve, following the intention declared by the Congolese government in 1991. This reserve is to be gazetted no later than Decemeber 31, 1993. The CFC project is also intended to organize an applied research program and station for the reserve, train Congolese conservationists (both scientific and managerial), and involve local populations in management of the reserve and associated natural resources. The initial 5-year phase began mid-1991, with significant but incomplete funding from the above sources. Previously confirmed funding will cover costs of most project personnel, partial logistical support, and some training and research costs. Since 1987 the site has also been the object of biological and anthropological research, undertaken by a team from the University of Kyoto and the General Direction of Scientific and Technical Research (DGRST). Research has focussed on the ecology and behavior of forest primates, and the Aka and B'aaka pygmies.

**VI. Project Interventions**

8. The project activities planned for Nouabalé-Ndoki would be complementary to those in progress via the above projects and would be executed by CFC in liaison with the University of Kyoto for certain aspects of research. They would consist of:

- (a) the establishment of an effective system of reserve protection (boundary marking; administrative, guard and guide training) -- CFC;
- (b) assessment of large mammal hunting (harvest rates, renewal rates, impacts, economic importance, guidelines for sustainable use) -- CFC and University of Kyoto;
- (c) studies of vegetational dynamics, with focus on regeneration in natural and logged forest patches to assess damage from harvest regimes -- CFC;
- (d) inventory and monitoring of selected flora and fauna -- CFC, University of Kyoto, and National Herbarium;
- (e) anthropological studies to assess needs and desires of local human populations, and thereby guide project activities -- University of Kyoto;

- (f) creation of basic infrastructure to allow establishment of a scientific research center -- CFC and University of Kyoto;
- (g) training (direct, via apprenticeship and guided research) in the activities cited above -- CFC and University of Kyoto.

## VII. Field Resources

9. The following field resources would need to be provided to expand activities already initiated as part of the projects underway:

- (a) Infrastructure: Two basic but durable research stations will be constructed: one near the Ndoki (camp site of the Kyoto University researchers) and another near the Mbeli clearing (CFC);
- (b) Permanent staff: Expatriate personnel will be provided by existing projects for a period of at least 5 years (end of first year of CFC operations will coincide with the onset of the GEF project); Senior CFC Congolese staff will be salaried by the Government of Congo, with logistical and operational support provided by the project. Additional full-time staff would be salaried by existing projects, with the following complement to be covered by project funds:
  - (i) four Congolese scientists associated with the Japanese team (sociology of human settlements and primatology); and
  - (ii) support staff: one clerk/bookkeeper; one secretary; two boatmen; gamewardens/guides; and five caretakers/laborers; and
- (c) Temporary staff: Project funding would be applied as follows:
  - (i) temporary laborers would be recruited to build basic project infrastructure and work as porters/guides (for a total of 60 man-years);
  - (ii) funds will be made available at field level to finance periods of residence by national students interested in doing their final university assignments in subjects that would improve existing knowledge of the zone and promote its conservation; and
  - (iii) local residents will be recruited as porters/guides to accompany the various working tours that will take place in the reserve.

## VIII. Financing

10. The project would benefit from the above-described joint USAID/WCI financing, support from the University of Kyoto, and provision of U.S. Peace Corps personnel. Discussions continue concerning possible additional financing by German bilateral assistance (GTZ). This financing would go toward an assessment and outreach program in Ouessou and other surrounding communities.

11. Infrastructure, resources and operating funds will be shared by the CFC and University of Kyoto teams and administered as an integral part of the CFC project under the supervision of the project direction acting for and on account of the Government.

**REPUBLIC OF CONGO****WILDLANDS PROTECTION AND MANAGEMENT PROJECT****Conkouati Reserve****I. Background**

1. The Conkouati fauna reserve, created in 1980 and modified in 1989, has a surface area of approximately 300,000 ha. The region comprising and surrounding the reserve is divided into concessions leased out to forestry companies (for exploitation) and oil companies (for exploration). This has meant that a "total and absolute protection of the wildlife", as described in the reserve's legal statute, has been difficult.

2. The reserve includes a vast diversity of ecosystems: from marine and coastal zones to the Mayombe mountains, and from savannahs areas to wetlands and dense forests. Marine, brackish and fresh water ecosystems are well represented in the reserve by the ocean, lagoons, rivers and lakes. Although the wildlife is under extreme pressure due to the proximity to Pointe Noire, the abundance of wildlife remains the highest in the south of Congo.

**II. Fauna**

3. Preliminary studies on the fauna of the reserve were conducted by the World Conservation Union (IUCN) in collaboration with the Direction of Flora and Fauna Conservation (DFFC) in the south-east and south-west parts of the reserve; only the northern part of the reserve is poorly studied. Several other inventories, in particular on elephants have been conducted by Wildlife Conservation International (WCI). The results of these studies show the wildlife typical of the Congolese savannah and forest: buffalo, waterbuck, duiker, red forest hog, *Atherus africanus*, gorillas, chimpanzees, mandrills, panthers, elephants, etc. The diversity of habitats in the reserve also supports a diverse bird life. The beaches of the reserve are the nesting grounds for a variety of sea turtles and the Conkouati lagoon and Noubi river still contain populations of manatees.

**III. Flora**

4. The vegetation in the reserve parallels the Atlantic coast. From the coast to the Mayombe the vegetation moves from a coastal vegetation to a mosaic of gallery forests and savannahs to the rich, dense lower montane forests of the Mayombe. Interspersed in this mosaic are swamps and flooded forests.

5. The flooded forests and swamps are almost the last remaining examples of untouched forests in the south of Congo, in particular in the Kouilou region. Some of the non-inundated forests are still fully intact, however, most of the forests have undergone at least one stage of logging.

6. The preliminary inventories (ORSTOM, CERVE, IUCN) have demonstrated the floristique richness and presence of endemic species form the region west of the Mayombe. Two species of coffee unknown elsewhere have been found near the village of Ngongo.

**IV. Human Population**

7. The population of the district of Madingo-Kayes is approximately 7,500 inhabitants for 6,260 km<sup>2</sup>, or 1.2 inhabitants/km<sup>2</sup>. The 5,000 inhabitants who live in reserve are spread throughout the 34 villages. The closest city is Pointe-Noire, situated at approximately 90 km from Tchizalamou, the entrance to the reserve. The direct

impact of the populations living in and around the reserve has been the subject of several recent studies by IUCN, but the influence of Pointe-Noire (600,000 inhabitants) on Conkouati and the impact of the populations on the resources of the reserve remains a priority to study.

8. The recent authorization of forest exploitation and oil exploration has created a series of roads in the reserve which have increased the accessibility to the interior of the reserve for hunting. Hunting and fishing remain the principle occupations of men, whereas traditional agriculture is the main occupation of women. Amongst the industrial activities in the region, uncontrolled forest exploitation is the most threatening. In addition to this, brush fires and poaching threaten the reserve.

#### V. Existing Actions

9. The Conkouati reserve is actually under the responsibility of the Direction of Flora and Fauna Conservation (DFFC). Presently one conservator and several guards, based in Madingo-Kayes, are in charge of the management of the reserve. The present management is restricted to road checks outside of the reserve, as they have no vehicles or equipment at their disposal and little financial support. Infrequent visits are made to the reserve when officials from Brazzaville visit.

#### VI. Project Interventions

10. The long term objective of the interventions in Conkouati are to address the needs of the populations living around the reserve, and protect a significant amount of biodiversity while considering the industrial demands on the region (forest exploitation and oil exploration).

11. The activities proposed by the GEF project in Conkouati are in line with those already initiated by IUCN and a national NGO with support from BP and Chevron International Limited.

12. The systematic application of a rational protection strategy for the Conkouati reserve is difficult due in part to the diversity of ecosystems, human pressures, potential for tourism, the need for self-sufficient villages and the industrial pressures (wood, minerals and oil). Thus, an effective protection policy would have to be developed in collaboration with local communities and the industries in the area so that it encompasses not only protection, but rational harvesting and management of natural resources.

13. The interventions in Conkouati would be executed by the World Conservation Union (IUCN), with the assistance of a national NGO and the DFFC. The planned interventions would be as follows:

- (a) the reinforcement of the DFFC's capacity to manage the reserve (surveillance, protection, management, monitoring and evaluation, and involvement of local populations);
- (b) delineate the limits of the reserve to include marine and coastal areas, forest and savannah areas and core and multiple use areas, with the possibility of a transborder area with Gabon;
- (c) prepare a detailed, yet flexible management plan for the reserve, integrating the needs of the local communities with sustainable management of natural resources;
- (d) complete biological inventories and studies on the physical characteristics of the reserve and the flora and fauna started by IUCN;
- (e) study the human impact and the socio-economic dynamics of populations living within and around

the reserve, including the influence of the city of Pointe Noire. In particular, the problems associated with the forest exploitation industry, and the better management of natural resources. Other studies would include the demand for bushmeat, poaching, oil exploration and mining;

- (f) identify and develop alternative economic activities (this would be done directly by the project, or in liaison with other locally established projects and MUCODEC);
- (g) help DFFC reintroduce confiscated chimpanzees to the reserve, which would serve as a catalyst to develop tourism from Pointe Noire;
- (h) progressively develop small-scale tourist activities near and in the reserve to attract tourists from Pointe Noire;
- (i) study the modes of hunting around the reserve with the goal of developing a subsistence and rational hunting policy for the area;
- (j) develop an awareness program for the local populations of conservation and sustainable use of natural resources.
- (k) help supervise environmental impact studies done by forestry and oil exploration companies;
- (l) research financial support for activities which would continue after the project and for which other sources of funds (Trust Fund) would not be sufficient.

**REPUBLIC OF CONGO**  
**WILDLANDS PROTECTION AND MANAGEMENT PROJECT**

**Dimonika-Man and Biosphere Reserve**

**I. Background**

1. Dimonika-Man and Biosphere (MAB) reserve, located north of National Highway 1 near Mvouti, roughly 185 km northeast of Pointe-Noire and 400 km west of Brazzaville, was created in 1988 as part of the UNESCO Man and Biosphere (MAB) program. Consisting of some 136,000 ha, or close to one-third of the Mayombe forest, the reserve is subdivided as follows:

- (a) a central zone bordered on the north by the Loubomo River, on the west by longitude 12°12' East, on the east by longitude 12°32'30" East, and on the south by latitude 4°16' South and the zone of influence running alongside National Highway 1;
- (b) an initial buffer zone 4 km in width extending on either side of the Mpounga-Makaba road leading toward the center of the reserve;
- (c) a second buffer zone between latitude 4°16' South and the northern boundary of the zone of influence; and
- (d) a zone of influence consisting of a strip 6 km in width to the north of National Highway 1.

**II. Fauna**

2. The wildlife of the Mayombe is an important source of protein for its inhabitants. The rivers hold a great diversity of fish species, and land animals include large mammals (elephants, gorillas, chimpanzees, leopards, buffalos, monkeys, etc.) and reptiles (crocodiles, monitor lizards, and snakes). Knowledge of wildlife distribution, abundance and dynamics in the Mayombe is still limited. It is nevertheless known that a significant decline in the populations of large mammals has taken place due to village-based hunting in the region.

**III. Flora**

3. The Mayombe consists largely of dense closed forest. Large, often deciduous trees tower above a tall, evergreen subforest. Given the extreme humidity, epiphytes are rare. The moist valleys and riparian forests are particularly rich in *Symphonia globulifera* and *Julbernardia briei*.

**IV. Human Population**

4. The Mayombe forest harbors a human population of approx. 27,000 inhabitants, living in two prefectures. Average population density is 4.6 inhabitants/km<sup>2</sup>. From the 1930s through the late 1980s, inhabitants have participated in a cash economy, based first on employment for railroad construction, then mining, and later forestry exploitation. Presently, hunting and cultivation of food crops are the main economic activities. Given a lack of reliable transport for agricultural products, villagers have found little alternative to hunting game meat, which is now officially prohibited in the Dimonika reserve.

5. The Dimonika reserve has benefitted from five years of UNDP/UNESCO, but little has been done to create alternative activities for the local populations in and around the reserve. These populations have been prohibited from hunting. The existing reserve management has spent several years conducting surveys on the attitudes of the local people towards the reserve and on actions the local populations would like to see as a result of the reserve, but little has been carried out. During the project preparation, the Bank team visited the reserve and discussed some of the main problems with the local manager of the reserve and members of the local communities. The local populations want protection measures to parallel the development of alternative activities, such as aquaculture and the harvesting of non-timber forest products.

#### V. Conservation Activities

6. The Dimonika-MAB project in the Mayombe has to date benefitted from UNDP and UNESCO funding, and a collaboration with ORSTROM, utilized mainly in gaining greater scientific knowledge of the ecosystems characteristic of the zone and economic activities, with some development of basic infrastructure. Studies carried have revealed a high degree of biological diversity, protection of which is justified within the priority objectives of the GEF.

7. The MAB project was designed chiefly to create a fully functional MAB-Dimonika reserve, so that the resident biodiversity could be protected at the same time as development in neighboring communities was assured. Despite judicious zoning of the reserve, the resources mobilized to those ends have been inadequate, with the result that the traditional modes of harvesting wildlife in the region have remained unchanged, while there is growing hostility on the part of the population to the introduction of protection measures. This is mainly a consequence of: (a) the inadequate nature of the resources devoted so far to creating basic infrastructure and to day-to-day management; (b) uncertainty as to the status of buffer zones and the zone of influence, and the extent of restrictions on the taking of game in them; (c) the heavy impact of human activities on the natural environment -- a result of the presence of itinerant gold prospectors and of a number of villages located in the middle of the reserve (buffer zone 1), the presence of large communities south of the zone of influence, and the proximity of the railway; and (d) the gradual winding down of logging operations, involving a corresponding degree of deterioration of forest access roads and a significant decrease in the sources of revenue available to forest inhabitants.

8. GEF activities will focus chiefly on:

- (a) the establishment of an effective system of protection for the reserve; and
- (b) the involvement of local population groups more closely in the new policy of natural resource management to be introduced -- a policy that must necessarily go hand in hand with a substitution for forest resources withheld and/or the development of alternative sources of income.

9. Given that the current situation is complicated by the fact that the local population sees itself in conflict with reserve protection and that a protection team will be constituted for the first time, the GEF project will finance: (1) a technical assistant for the first two years of the project, and (2) support for transportation and guard equipment in order to establish an effective management system under the DFFC.

10. An outreach officer would coordinate interactions between the reserve and local populations. This officer will establish a dialogue with surrounding villages concerning natural resource use, conservation and management. He/she will help local people identify economic activities providing alternatives to over-exploitation, and will facilitate development of promising suggestions as well as protection of the reserve. Similar to the cases of Conkouati and Lefini, the officer will be the project liaison with the MUCODEC investment program, which will be established in the area to provide the financial means to implement selected alternatives.



**REPUBLIC OF CONGO****WILDLANDS PROTECTION AND MANAGEMENT PROJECT****Léfini Reserve****I. Background**

1. Located north of Brazzaville on the, Léfini reserve is a vast zone (630,000 ha) of savannah and gallery forest stretching 210 km from north to south, its southern limit lying some 90 km north of Brazzaville. It was designated as a reserve in 1951 (Decrees 3671 and 7262 in 1984). In 1963, the fauna in the area was declared to be fully protected. At the present time, the zone itself is only partially protected.

2. Léfini is situated at an altitude of approximately 650-700 m on the limestone Batéké plateau, traversed by deep (c. 310-380 m) river valleys. The Léfini River, running from west to east, has several small tributaries, chiefly the Louna, Loubilika, Djouélé and Nambuli. The river valleys range from those that are deeply set, with little or no floodplain, to those that are broad and edged by forest, marsh and savannah. The vegetation of the Batéké plateau is mainly tall-grass savannah with scattered shrubs and patches of forest; its slopes, which grade rather abruptly down to the rivers, consist of a mosaic of short-grass savannah and patches of forest that extend out from the river beds.

**II. Fauna**

3. Various studies on the zone and discussions with inhabitants of local villages have confirmed the presence of various animal species in the reserve, including elephant, hippopotamus, buffalo, sitatunga, duiker (grey, blue), bushbuck, red forest hog, aardvark, jackal, lion and two monkey species, *Cercopithecus neglectus* and *Cercopithecus cephus*.

4. Animal population density, however, is low. This is undoubtedly due to a combination of two factors: (a) the soils found in the reserve are of such low fertility that their associated large mammal carrying capacity is correspondingly low; and (b) heavy hunting pressure has reduced some populations to extremely small numbers.

**III. Flora**

5. The Léfini reserve houses different types of vegetation cover in a mosaic of forest and savannah. The plateau area (approximately 650-700 m in altitude) consists mainly of high-grass savannah studded with shrubs.

6. Although there are different kinds of vegetation (savannah, forest and swamp), these habitats contain relatively few species. Similarly the ecotones separating different types of vegetation cover are not very rich in species, although they can be peculiar. Savannah in other parts of Africa is much richer in species, which may indicate that the Congolese savannah is of comparatively recent origin. The forest richest in species is found on the plateau, but even this is relatively poor compared to forests in the north of the country and in the Mayombe.

**IV. Human Impact**

7. Only sparsely populated, the reserve contains a small number of villages, mainly on the ring road north of the Léfini river and west of the Northern Road. There is also a major village at Mbouambe, at the point

where the Northern Road and the Léfini intersect. On the plateau, cassava and groundnuts are grown between long fallow periods. The same two crops are also grown in the vicinity of roads (leading to the east and north of the reserve) and villages (where different species of trees, but particularly mango and oil palm, are also cultivated for harvest).

8. Pressure from hunting is heavy along the Léfini and Nambouli rivers, which are deep enough to allow navigation in dug-out canoes with outboard motors. Mbouambe appears to be a center for trading in meat, whether intended for local consumption or other destinations. The present condition of the road does not allow access to Mbouambe, but once the current repair program is completed and traffic increases, the zone would probably be subject to still greater pressure from human activities. Most hunting takes place by day with guns, or by night with spotlights to flush the animals out of their hiding places.

9. During project preparation, populations living along the highway and next to the reserve were consulted. There was a consensus amongst the populations that the wildlife was decreasing dramatically and needed to be protected. Most of the illegal hunting was for commercial purposes. It was determined that the areas outside the fully protected core areas would still permit the little subsistence hunting required to support the populations.

#### V. Actions Complementary to Project

10. The southern border of the Léfini Reserve has been identified as a likely site for introduction of gorillas by the Gorilla Protection Project, a program financed by the Howletts and Port Lymphe Foundation and coordinated by the DFFC. This project has been established to accept gorillas confiscated from sellers or owners by governmental authorities, bring them back to health, and eventually reintroduce them to a wild habitat. At present, confiscations and healthcare are well under way, and personnel are now designing a second phase project to implement reintroduction. Partial financing is promised from the founding organization, but complementary funds would be required to be able to execute the next phase.

#### VI. Project Activities

11. The strategy so far followed for conservation of the natural environment of Léfini has focused on protecting fauna throughout the entire 630,000 ha of the reserve. Given the pressure created by growing demand for bushmeat in Brazzaville, protection efforts have failed completely. This has been evidenced by inventories, which indicate that wildlife is becoming increasingly rare, chiefly because of the activities of poachers employing guns.

12. Effective protection of the entire Léfini reserve would require a large investment of resources, and repopulation of the reserve at characteristic densities would require a lengthy period of time. Given that this is currently not justifiable, due to the combination of depressed animal populations and personnel and financial constraints, the project would initially focus on selected sites and activities to begin the process of recovery. Therefore, the project would concentrate on protection and management activities in two areas: (a) the Lake Bieu area, at the southern border of the reserve, where gorilla introduction efforts are planned by the Project for the Gorilla Protection Project; and (b) the Mbouambe area, the northern part of the reserve where higher animal densities are found, and where surveillance is facilitated by ready access via the Léfini River and its tributaries. Each of these areas affords promise of tourism potential, and thereby the possibility of recovering recurrent costs. Success on these fronts would allow expansion of conservation activities to other portions of the reserve in the future.

13. Project activities, to be executed directly by DFFC in conjunction with the Gorilla Protection Unit (GPU), would include:

- (a) development and implementation of a detailed reserve management plan;
- (b) reinforcement of protection activities undertaken by reserve personnel (including provision of logistics, operational costs, supplemental personnel);
- (c) partial assistance to the gorilla introduction program, to provide a focus for conservation education and tourism; and
- (d) establishment of an integrated outreach program with local populations, combining dialogue and public awareness concerning reserve protection and natural resource conservation, with facilitation of resource substitution and/or development of alternative economic activities.

14. The project component of gorilla introduction near Lake Bleu would be conducted along the same lines as that for chimpanzee reintroduction in the vicinity of Conkouati Lagoon, in that every effort would be made to stop poaching, and thereby break the cycle of poaching/confiscation/release of confiscated animals. It would also be regarded as an experiment likely to pave the way for media presentation of the need to protect the large primates, which continue to be hunted for meat and live sale. In addition to considerable scientific interest, the experiment is also likely to provide an appealing "product" as far as tourism development in the zone is concerned (attracting a clientele from Brazzaville and possibly beyond), and therefore to contribute ultimately to recovery of the recurrent costs of the project.

15. The Lake Bleu area in question, however, is at present outside the reserve. It should therefore be considered as the subject of a decree designating it as a protected zone. Current and customary use of this area by must be fully identified and considered, and consensus with local people sought on allowable uses of the area to be zoned.

16. An outreach officer would be named by the DFFC to coordinate interactions between the reserve and local populations. This officer would establish a dialogue with villagers concerning natural resource use, conservation and management in each of the two project focal areas. He/she would help local people identify economic activities providing alternatives to over-exploitation, and would facilitate development of promising suggestions as well as protection of the reserve. Similar to the cases of Conkouati and Dimonika, the officer would be the project liaison with MUCODEC and other locally established project. The project would provide assistance for the MUCODEC to be established in the region and would provide the financial means to implement selected alternatives.

**REPUBLIC OF CONGO****WILDLANDS PROTECTION AND MANAGEMENT PROJECT****Lake Télé - Likouala-aux-Herbes Site****I. Background**

1. Situated in the Congolese Cuvette in northern Congo, the site of Lake Télé - Likouala-aux-Herbes, covers a total of 1,050,000 ha, and constitutes a very particular inundated forest and swamp ecosystem. Although it has no legal status as a protected area, it is nevertheless considered a "protected forest" and has not been divided into forestry concessions for logging. The main human impact in the area is hunting, however the site is considered to be relatively undisturbed. Approximately eight scientific research missions have been carried out since 1981 around lake Télé, but the results of these missions focus primarily on the characteristics of the lake itself and to date have had no influence on protection.

**II. Flora**

2. The flora and vegetation of the site is very poorly known and needs to be studied in detail. The majority of the site is covered with permanently or semi-permanent inundated forests and swamps. The remainder of the site is made up of dense forest and floating savannahs of *Gramineae* and *Cyperaceae*. The inundated and primary dense forests which cover the site on the congolese-zairois cuvette are in pristine condition and are some of the best examples of inundated forest which most likely dried considerably during the pleistocene era.

**III. Fauna**

3. Several short zoological expeditions have been conducted in the site under the direction of Woods Hole Oceanographic Institute. The focus of these expedition has been the area surrounding lake Télé. The results show 41 species of fish (several endemic species), 50 species of birds, 12 species of primates (including gorillas and chimpanzees) and other diverse mammals (elephants, otters, situngas etc.). A very large population of pythons also live around lake Télé. The fauna in the site is still relatively untouched and represent important populations of a large proportion of Congo's animals.

**IV. Human Population**

4. The area around the site is relatively unpopulated (1 inhabitant/km<sup>2</sup>), except for the large villages which border the Sangha and Likouala-aux-Herbes rivers. Human pressure is therefore localized to noninundated land next to the major rivers. The majority of the villagers are fishermen and hunters (mostly from the Bometaba tribe and pygmies). The hunters in the area are generally restricted to the noninundated land, and although the influence of hunting on the animal populations is hard to measure in the area, the pressure is still light for most animals, with the exception of elephants. However, the improvement of the road from Impfondo-Epena has greatly increased the number of monkeys and antelopes hunted. Alternative agriculture activities are difficult due to the patchiness of the noninundated land.

5. To date, few consultations have been undertaken with the local populations, although several groups of foreign researchers have been in the area. The gazetting of the site will be undertaken in conjunction with the Government's commitment to establish a RAMSAR site, thus consultations with local populations and gazetting of the site will occur over the first few years of project activities. The villages around the site still maintain a traditional control over their land, so care would have to be taken to consult carefully with all communities concerned to ensure their involvement.

#### V. Existing Actions

6. Although several proposals have been put forth to gazette the site by various services of the Congolese Government, the area does not yet benefit from any protection. A small grant was awarded by the RAMSAR convention to prepare a document to have the site declared a RAMSAR site, but the RAMSAR convention has not yet been signed by Congo and no management of the area has begun.

#### VI. Project Interventions

7. The long term objective is to provide Congolese institutions with a model for integrating biodiversity protection and rural development in wetlands protection.

8. Activities in Lake Télé/Likouala-aux-Herbes would be executed by IUCN, in collaboration with the national RAMSAR working group and DFFC. The project would:

- (a) produce the baseline data and documents for the gazetting the site;
- (b) establish a preliminary management plan integrating local land use patterns and laws with management of the site;
- (c) define alternative activities for local populations, such as ecotourism and aquaculture;
- (d) develop educational and sensitization activities on natural resource management for local populations; and
- (e) solicit long-term external financing for the site.

9. The project interventions would constitute a first phase of a long term project and would be executed over three years. The preliminary phase of these interventions would be consultations with local populations, socio-economic studies and biological inventories. These baseline data would be used to define the limits of the site and the core and multiple use areas. Another priority would be the development of a plan for alternative economic activities for the local populations. This would be based on traditional way of life in the area and local land use practices.

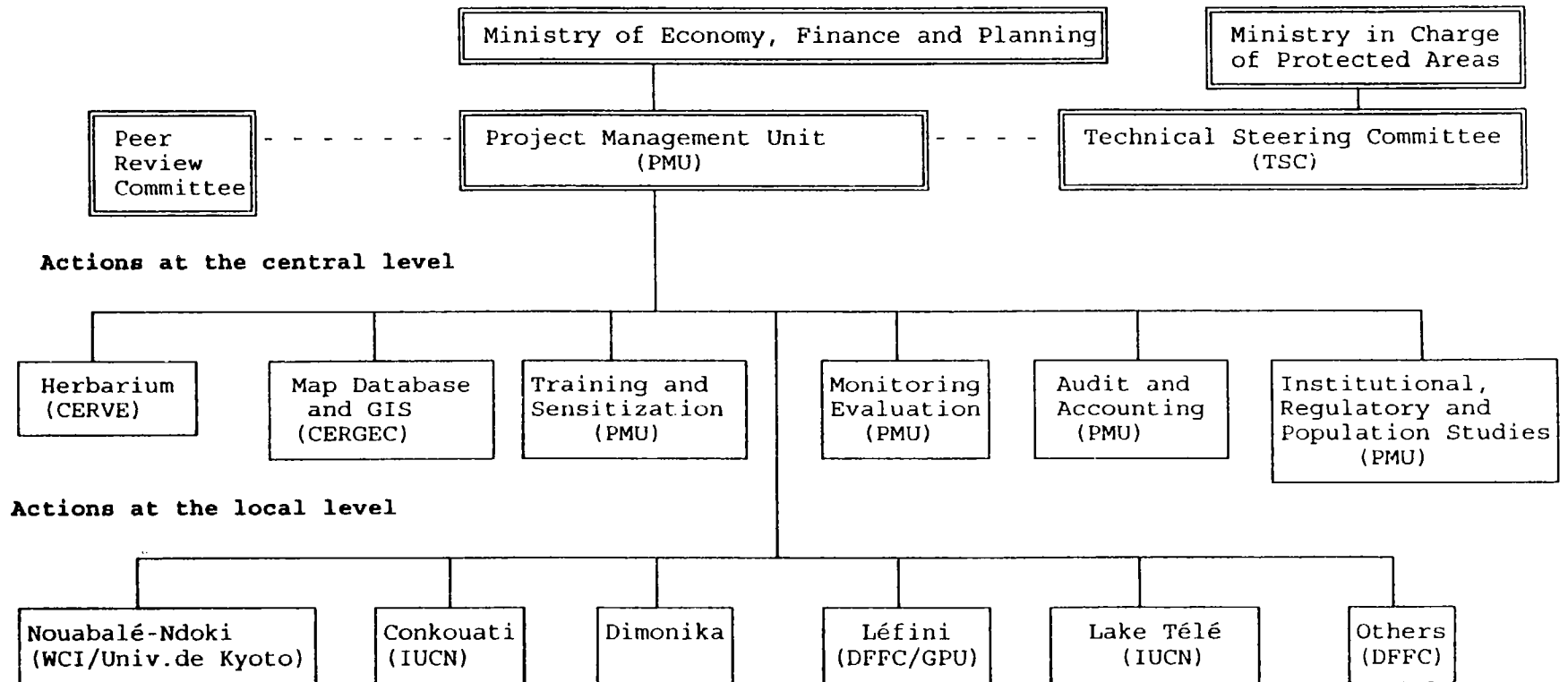
10. The project interventions at the site would be executed by IUCN in collaboration with the DFFC and the RAMSAR working group. In this capacity, IUCN would help the Government of Congo solicit external funding to support the RAMSAR working group (established in 1991) and finance a national program for wetlands conservation and management.

11. The delimitation of the site would be done in collaboration with the concerned institutions (namely DFFC, CERGEC and CERVE) and with the local populations. The accent would be placed on developing a village-based management system where villages practicing traditional land use rights would manage areas of the site.

REPUBLIC OF CONGO

WILDLANDS PROTECTION AND MANAGEMENT PROJECT

Organizational Chart



Legend

- ( ) - executing agency
- CERVE - National Herbarium
- CERGEC - Geographic Research and Cartographic Production Center
- DFFC - Direction of Fauna and Flora Conservation
- WCI - Wildlife Conservation International
- IUCN - World Conservation Union
- GPU - Gorilla Protection Unit

**N.B.** This Organizational Chart is only valid until the Mid-Term Review of the project (PY3); after that date, the permanent structure applies.

**REPUBLIC OF CONGO**  
**WILDLANDS PROTECTION AND MANAGEMENT PROJECT**  
**SUMMARY ACCOUNT BY PROJECT COMPONENT**

	PMU	Training	Consult.	CERGEC	CERVE	Nouabale	Conkouati	Dimonika	Léfini	Lake Télé	Total
	(CFAF Million)										
<b>Investment Costs</b>											
Reserve civil works	19,044	-	-	1,300	2,000	95,341	27,110	18,200	53,763	2,002	218,759
Other civil works	-	-	-	-	-	38,260	18,200	7,800	18,980	7,800	91,040
Goods	6,552	-	-	-	-	16,078	10,041	2,522	13,790	5,616	54,600
Vehicles/boats	12,392	-	-	-	6,500	40,974	27,021	12,565	28,930	9,411	137,793
Office equipment	12,038	-	-	19,358	14,698	15,964	14,729	2,418	10,881	3,094	93,180
Office supplies	0,536	-	-	0,812	1,560	-	1,040	2,600	-	0,119	6,667
Research Equipment	-	-	-	-	8,600	25,008	34,482	8,014	13,875	5,568	95,547
Shipping	5,200	-	-	-	-	8,052	6,500	3,900	-	-	23,652
Resident experts	101,500	-	-	55,728	38,852	162,055	91,986	81,542	-	21,142	552,805
<b>Total Investments</b>	<b>157,262</b>	<b>-</b>	<b>-</b>	<b>77,198</b>	<b>72,210</b>	<b>401,732</b>	<b>231,108</b>	<b>139,561</b>	<b>140,219</b>	<b>54,753</b>	<b>1,274,043</b>
<b>Recurrent costs</b>											
Salaries	95,363	-	-	2,340	15,662	183,941	116,601	40,113	70,197	18,789	543,006
Travel	5,556	-	-	3,280	3,280	26,400	2,888	1,620	1,056	3,100	47,180
Vehicle O & M	10,568	-	-	2,116	5,290	46,736	13,474	22,200	8,606	6,160	115,150
Equipment O & M	37,576	-	-	0,538	3,228	5,662	7,102	-	8,393	0,188	62,686
Other O & M	6,857	-	-	3,142	5,864	6,104	21,524	4,053	19,308	6,321	103,173
MUCODEC	26,750	-	-	-	-	4,815	2,430	16,100	1,170	2,010	53,275
Consultancies	25,017	-	309,810	-	8,323	59,463	21,920	-	-	3,636	428,169
Other incr. Op.	102,000	284,200	-	3,620	9,656	45,293	51,932	-	8,260	7,120	512,071
NGO Management	-	-	-	-	-	62,165	56,669	16,257	-	14,563	149,655
<b>Total Recurrent</b>	<b>309,687</b>	<b>284,200</b>	<b>309,810</b>	<b>15,036</b>	<b>51,304</b>	<b>470,750</b>	<b>294,539</b>	<b>100,243</b>	<b>116,990</b>	<b>61,888</b>	<b>2,014,367</b>
<b>Total baseline costs</b>	<b>466,949</b>	<b>284,200</b>	<b>309,810</b>	<b>92,234</b>	<b>123,513</b>	<b>872,302</b>	<b>525,648</b>	<b>239,904</b>	<b>257,209</b>	<b>116,641</b>	<b>3,288,410</b>
Physical contingencies	51,147	57,840	56,962	1,867	7,670	67,714	37,838	14,411	23,708	8,325	327,482
Price contingencies	22,080	16,984	14,739	2,346	3,235	37,503	19,106	10,028	7,451	3,996	137,468
<b>Total project costs</b>	<b>540,176</b>	<b>359,024</b>	<b>381,511</b>	<b>96,447</b>	<b>134,418</b>	<b>977,519</b>	<b>582,592</b>	<b>264,343</b>	<b>288,368</b>	<b>128,962</b>	<b>3,753,360</b>

**REPUBLIC OF CONGO**

**WILDLANDS PROTECTION AND MANAGEMENT PROJECT**

**SUMMARY ACCOUNTS BY YEAR**

	<u>92/93</u>	<u>93/94</u>	<u>94/95</u>	<u>95/96</u>	<u>96/97</u>	<u>Total</u>	<u>92/93</u>	<u>93/94</u>	<u>94/95</u>	<u>95/96</u>	<u>96/97</u>	<u>Total</u>	
	<u>CFAF Million</u>						<u>\$US Million</u>						
<b><u>Investment Costs</u></b>													
Reserve civil works	161,011	38,437	12,529	6,783	0,000	0,000	218,759	0,619	0,137	0,045	0,024	0,000	0,826
Other civil works	88,400	2,640	0,000	0,000	0,000	0,000	91,040	0,340	0,009	0,000	0,000	0,000	0,209
Goods	50,430	4,170	0,000	0,000	0,000	0,000	54,600	0,194	0,015	0,000	0,000	0,000	0,349
Vehicles/boats	120,140	2,891	12,899	1,863	0,000	0,000	137,793	0,462	0,010	0,046	0,007	0,000	0,525
Office equipment	93,180	0,000	0,000	0,000	0,000	0,000	93,180	0,358	0,000	0,000	0,000	0,000	0,358
Office supplies	5,798	0,455	0,414	0,000	0,000	0,000	6,667	0,022	0,002	0,001	0,000	0,000	0,025
Research equipment	73,980	15,140	3,158	2,602	0,667	0,667	95,547	0,285	0,054	0,011	0,009	0,002	0,362
Shipping	18,720	2,466	2,466	0,000	0,000	0,000	23,652	0,072	0,009	0,009	0,000	0,000	0,090
Resident experts	181,588	160,746	131,128	58,108	21,235	552,805	0,698	0,574	0,468	0,208	0,076	2,024	
<b>Total Investments</b>	<b>793,246</b>	<b>226,946</b>	<b>162,594</b>	<b>69,356</b>	<b>21,902</b>	<b>1,274,043</b>	<b>3,051</b>	<b>0,811</b>	<b>0,581</b>	<b>0,248</b>	<b>0,078</b>	<b>4,768</b>	
<b><u>Recurrent costs</u></b>													
Salaries	135,104	146,645	136,201	132,331	0,000	0,000	550,287	0,520	0,527	0,488	0,474	0,000	2,009
Travel	13,614	12,813	13,093	7,661	0,000	0,000	47,180	0,052	0,046	0,047	0,027	0,000	0,172
Vehicle O & M	31,756	30,383	28,102	24,909	0,000	0,000	115,150	0,122	0,109	0,100	0,089	0,000	0,420
Equipment O & M	16,712	17,483	17,490	9,860	1,142	62,686	0,064	0,062	0,062	0,035	0,004	0,228	
Other O & M costs	1,144	34,144	34,441	33,159	2,283	105,173	0,004	0,122	0,123	0,118	0,008	0,376	
MUCODEC	11,830	16,200	14,175	11,070	0,000	53,275	0,046	0,058	0,051	0,040	0,000	0,194	
Consultations	155,747	98,875	94,217	79,330	0,000	428,169	0,599	0,353	0,336	0,283	0,000	1,572	
Other incr. op.	146,276	134,270	136,910	80,414	0,000	497,871	0,563	0,480	0,489	0,287	0,000	1,818	
NGO management cost	68,011	38,166	26,229	16,714	0,534	149,655	0,262	0,136	0,094	0,060	0,002	0,553	
<b>Total Recurrent cost</b>	<b>580,194</b>	<b>528,981</b>	<b>500,858</b>	<b>395,454</b>	<b>3,959</b>	<b>2,009,446</b>	<b>2,232</b>	<b>1,893</b>	<b>1,790</b>	<b>1,413</b>	<b>0,014</b>	<b>732</b>	
<b>Total Baseline costs</b>	<b>1,373,440</b>	<b>755,927</b>	<b>663,452</b>	<b>464,810</b>	<b>25,861</b>	<b>3,283,489</b>	<b>5,283</b>	<b>2,704</b>	<b>2,371</b>	<b>1,661</b>	<b>0,092</b>	<b>12,110</b>	
Physical contingencies	134,597	74,080	65,681	47,875	0,728	322,961	0,517	0,265	0,237	0,171	0,003	1,193	
Price contingencies	0,000	28,725	51,749	55,312	3,923	39,709	0,000	0,103	0,185	0,198	0,014	0,500	
<b>Total Project costs</b>	<b>1,508,037</b>	<b>858,732</b>	<b>780,882</b>	<b>567,997</b>	<b>30,512</b>	<b>3,746,159</b>	<b>5,800</b>	<b>3,072</b>	<b>2,792</b>	<b>2,030</b>	<b>0,109</b>	<b>13,610</b>	



**REPUBLIC OF CONGO**

**WILDLANDS PROTECTION AND MANAGEMENT PROJECT**

**PROJECT COMPONENTS BY YEAR**

	<u>FY 93</u>	<u>FY 94</u>	<u>FY 95</u>	<u>FY 96</u>	<u>FY 97</u>	
	<u>(92/93)</u>	<u>(93/94)</u>	<u>(94/95)</u>	<u>(95/96)</u>	<u>(96/97)</u>	<u>Total</u>
	------(CFAF Million)-----					
<b><u>Baseline costs</u></b>						
PMU	127,192	96,716	92,388	43,654	-	359,950
Training	78,000	79,200	79,200	52,800	-	289,200
Consultancies	158,600	89,420	89,420	56,170	-	393,610
C.E.R.G.E.C	50,740	19,659	18,339	2,495	-	91,234
C.E.R.V.E	81,639	11,048	18,994	10,832	-	122,513
Nouabalé-Ndoki	307,367	223,296	176,477	158,955	15,207	881,302
Conkouati	252,392	112,125	95,550	65,581	-	525,648
Dimonika	101,921	62,181	37,080	31,784	8,938	241,904
Léfini	198,853	78,370	79,749	73,268	46,869	477,109
Lake Télé	<u>7,210</u>	<u>27,244</u>	<u>19,586</u>	<u>12,601</u>	<u>0,000</u>	<u>116,641</u>
<b><u>Total baseline</u></b>	<b><u>1413,912</u></b>	<b><u>799,259</u></b>	<b><u>706,785</u></b>	<b><u>508,141</u></b>	<b><u>71,013</u></b>	<b><u>3499,111</u></b>
Physical Cont.	61,362	54,575	53,020	30,467	0,628	200,052
Price Cont.	28,540	6,841	6,507	4,808	0,300	46,996
<b><u>Grand Total GEF</u></b>	<b><u>1503,814</u></b>	<b><u>860,675</u></b>	<b><u>766,312</u></b>	<b><u>543,416</u></b>	<b><u>71,9423</u></b>	<b><u>3746,159</u></b>

**REPUBLIC OF CONGO**

**WILDLANDS PROTECTION AND MANAGEMENT PROJECT**

**SUMMARY ACCOUNTS BY YEAR**

	<u>92/93</u>	<u>93/94</u>	<u>94/95</u>	<u>95/96</u>	<u>96/97</u>	<u>Total</u>	<u>92/93</u>	<u>93/94</u>	<u>94/95</u>	<u>95/96</u>	<u>96/97</u>	<u>Total</u>	
	------(CFAF Million)-----							------(US\$ Thousand)-----					
<b><u>Investment Costs</u></b>													
Reserve civil works	163	37	12	7	-	219	604	137	44	26	-	811	
Other civil works	89	2	-	-	-	91	330	7	-	-	-	337	
Goods	50	4	-	-	-	54	185	15	-	-	-	200	
Vehicles/Boats	121	3	12	2	-	138	448	11	44	7	-	510	
Office Equipment	93	-	-	-	-	93	344	-	-	-	-	344	
Office Supplies	7	-	-	-	-	7	26	-	-	-	-	26	
Research Equipment	75	16	3	2	-	96	278	59	12	8	-	357	
Shipping	19	2	3	-	-	24	70	7	12	-	-	89	
Resident Experts	190	157	127	57	21	552	705	583	470	211	78	2047	
<b><u>Total Investment Costs</u></b>	<b><u>807</u></b>	<b><u>221</u></b>	<b><u>157</u></b>	<b><u>68</u></b>	<b><u>21</u></b>	<b><u>1274</u></b>	<b><u>2990</u></b>	<b><u>819</u></b>	<b><u>582</u></b>	<b><u>252</u></b>	<b><u>78</u></b>	<b><u>4721</u></b>	
<b><u>Recurrent Costs</u></b>													
Salaries	141	142	132	128	-	543	522	526	489	474	-	2011	
Travel	14	13	13	7	-	47	52	48	48	26	-	174	
Vehicle O & M	34	30	27	24	-	115	126	111	100	89	-	426	
Equipment O & M	18	17	18	9	1	63	67	63	67	33	4	234	
Other O & M costs	1	34	34	32	2	103	4	126	126	119	7	382	
MUCODEC	12	15	15	11	-	52	44	55	55	41	-	195	
Consultations	164	96	92	76	-	428	607	356	342	281	-	1586	
Other Incr. Op. Costs	158	136	138	80	-	512	584	504	511	296	-	1895	
NGO management costs	72	37	25	16	-	150	267	137	93	59	-	556	
<b><u>Total Recurrent Costs</u></b>	<b><u>614</u></b>	<b><u>520</u></b>	<b><u>494</u></b>	<b><u>383</u></b>	<b><u>3</u></b>	<b><u>2014</u></b>	<b><u>2273</u></b>	<b><u>1926</u></b>	<b><u>1831</u></b>	<b><u>1418</u></b>	<b><u>11</u></b>	<b><u>7459</u></b>	
<b><u>Total Baseline Costs</u></b>	<b><u>1421</u></b>	<b><u>741</u></b>	<b><u>651</u></b>	<b><u>451</u></b>	<b><u>24</u></b>	<b><u>3288</u></b>	<b><u>5263</u></b>	<b><u>2745</u></b>	<b><u>2413</u></b>	<b><u>1670</u></b>	<b><u>89</u></b>	<b><u>12180</u></b>	
Physical contingencies	143	72	65	46	1	327	530	267	241	170	4	1212	
Price contingencies	-	29	51	54	4	138	-	107	188	200	15	510	
<b><u>Total Project Costs</u></b>	<b><u>1564</u></b>	<b><u>842</u></b>	<b><u>767</u></b>	<b><u>551</u></b>	<b><u>29</u></b>	<b><u>3753</u></b>	<b><u>5793</u></b>	<b><u>3119</u></b>	<b><u>2842</u></b>	<b><u>2040</u></b>	<b><u>108</u></b>	<b><u>13902</u></b>	

REPUBLIC OF CONGO  
WILDLANDS PROTECTION AND MANAGEMENT PROJECT

Estimated disbursement schedule and profile

A. Disbursement Schedule a/

<u>Bank's FYS</u>	<u>Bank's Semesters</u>	<u>Per Semester</u> US\$ Million	<u>Cumulative</u> %
1993	II	0.6	6
1994	I	1.2	12
	II	2.2	22
1995	I	3.4	34
	II	5.0	50
1996	I	6.2	62
	II	7.4	74
1997	I	8.6	86
	II	9.4	94
1998	I	10.0	100

---

a/ Based on Africa-wide standard disbursement profile for agriculture (June 1992).

B. Disbursement Profile

**REPUBLIC OF CONGO**  
**WILDLANDS PROTECTION AND MANAGEMENT PROJECT**

**Implementation Schedule 1/**

<u>Task</u>	<u>Completion Date</u>	<u>Agency Responsible</u>
- Calendar for deployment of field staff	Negotiations (Oct. 26, 1992) (*)	DFP
- Preparation of project work program for CY93	Negotiations (Oct. 26, 1992) (*)	MEFP/DFP
- Establishment of bidding documents for key project contracts	PPA Program (Nov.-Dec. 1992) (*)	MEFP
- Preparation of M&E methodology and CY93 work program	PPA Program (Nov.-Dec. 1992) (*)	MEFP
- Consultations with local populations over alternative activities	PPA Program (Nov.-Dec. 1992) (*)	DFP
- Procurement of key project vehicles, goods and equipment	PPA Program (Jan. to March 31, 1993)	MEFP/PMU
- Preparation of work program for the establishment of the Trust Fund	PPA Program (February 1993)	MEFP/DFP
- Stopping of issuance of logging permits in project priority sites	Grant Effectiveness (March 31, 1992)	MEF
- Creation of Project Management Unit (PMU)	Grant Effectiveness (March 31, 1993)	MEFP
- Selection of Project Coordinator and two high-level management staff	Grant Effectiveness (March 31, 1993)	MEFP
- Establishment of Technical Steering Committee	Grant Effectiveness (March 31, 1993)	MEFP

---

1/ An asterisk (\*) denotes a task already completed.

**Implementation Schedule (Ct'd)**

- Establishment of Peer Review Committee	Grant Effectiveness (March 31, 1993)	MEFP
- Issuance of tax exemption for project-related activities	Grant Effectiveness (March 31, 1993)	MEFP
- Deposit of CFAF 5 million on project account	Grant Effectiveness (March 31, 1993)	MEFP
- Signature of two separate twinning arrangements between CERVE and CERGEC on one hand, and two foreign institutions on the other	March 31, 1993	PMU/CERVE/ CERGEC
- Arrival of Principal Technical Advisor (PMU) and Technical Assistants for CERVE and CERGEC	March 31, 1993	PMU
- Arrival of Technical Assistance team for Konkouati	March 31, 1993	PMU
- Arrival of Technical Assistant for Dimonika	May 1, 1993	PMU
- Project Launch Workshop	May 3-8, 1993	PMU
- Arrival of Technical Assistance team for Léfini and Lake Télé	June 30, 1993	PMU
- Beginning of deployment of government staff in the reserves	June 30, 1993	DFFC
- Finalization of key M&E indicators	June 30, 1993	PMU
- First semi-annual report	June 30, 1993	PMU
- First local NGO consultation	June 30, 1993	PMU
- First TSC meeting	June 30, 1993	PMU
- Tutelage of Dimonika Reserve transferred to the Ministry in charge of protected areas	June 30, 1993	DFFC/MDTS
- First meeting of the Peer Review Committee	December 15, 1993	PMU

**Implementation Schedule (Ct'd)**

- First audit of project accounts	April 30, 1994	PMU
- Plan for review of the general legislation concerning protected areas	June 30, 1994	MEFP/DFP
- Preliminary steps to gazette the project sites	June 30, 1994	DFP
- Mid-Term Review mission	June 30, 1995	PMU
- Mid-Term Review report	September 30, 1995	PMU
- Enactment of new legislation concerning protected areas	December 31, 1995	MEFP/DFP/MEF
- Establishment of Trust Fund	December 31, 1995	MFPE
- Establishment of national permanent management structure in charge of reserves (NPMS)	December 31, 1995	MFPE
- Adoption of legal statutes for the project priority sites	December 31, 1995	MFEP
- Full government staff deployment in project priority sites	December 31, 1995	DFP
- Grant closing date	December 31, 1997	
- Project Completion Report	March 31, 1998	NPMS

<b><u>Legend:</u></b>	CERGECC	National Geographic and Cartographic Center
	CERVE	National Herbarium
	DFP	Direction of Flora and Fauna Conservation
	MEFP	Ministry of Economy, Finance and Planning
	MEF	Ministry of Water and Forestry
	MDST	Ministry for Technical and Scientific Development
	M&E	Monitoring and Evaluation
	NPMS	National Permanent Management Structure in charge of reserves
	PMU	Project Management Unit
	TSC	Technical Steering Committee

REPUBLIC OF CONGOWILDLANDS PROTECTION AND MANAGEMENT PROJECTImplementation Schedule

<u>Task</u>	<u>Completion Date</u>	<u>Agency Responsible</u>
- Calendar for deployment of of field staff	Negotiations (Oct. 26, 1992)	DFFC
- Preparation of project work program for CY93	Negotiations (Oct. 26, 1992)	MEFP/DFFC
- Establishment of bidding documents for key project contracts	PPA Program (Nov.-Dec. 1992)	MEFP
- Preparation of work program for the establishment of the Trust Fund	PPA Program (Nov.-Dec. 1992)	MEFP/DFFC
- Preparation of M&E methodology and work program	PPA Program (Nov.-Dec. 1992)	MEFP
- Consultations with local populations over alternative activities	PPA Program (Nov.-Dec. 1992)	DFFC
- Stopping of issuance of logging permits in project priority sites	Grant Effectiveness (December 31, 1992)	MEF
- Creation of Project Management Unit	Grant Effectiveness (December 31, 1992)	MEFP
- Selection of Project Coordinator and two high-level management staff	Grant Effectiveness (December 31, 1992)	MEFP
- Establishment of Steering Committee	Grant Effectiveness (December 31, 1992)	MEFP
- Establishment of Peer Review Committee	Grant Effectiveness (December 31, 1992)	MFPE
- Procurement of key project vehicles, goods and equipment	January 15 to March 31, 1993	PMU

Implementation Schedule (Ct'd)

- Signature of two separate twinning arrangements between CERVE and CERGEC on one hand, and two foreign institutions on the other	March 31, 1993	PMU/CERVE/ CERGEC
- Arrival of Principal Technical Advisor (PMU) and Technical Assistants for CERVE and CERGEC	March 31, 1993	PMU
- Arrival of Technical Assistance team for Konkouati	March 31, 1993	PMU
- Arrival of Technical Assistant for Dimonika	May 1, 1993	PMU
- Arrival of Technical Assistance team for Léfini and Lake Télé	June 30, 1993	PMU
- Beginning of deployment of government staff in the reserves	June 30, 1993	DFFC
- Finalization of key M&E indicators	June 30, 1993	PMU
- First semi-annual report	June 30, 1993	PMU
- First local NGO consultation	June 30, 1993	PMU
- First TSC meeting	June 30, 1993	PMU
- Tutelage of Dimonika Reserve transferred to the Ministry in charge of protected areas	June 30, 1993	DFFC/MDTS
- First meeting of the Peer Review Committee	December 15, 1993	PMU
- First audit of project accounts	April 30, 1994	PMU
- Plan for review of the general legislation concerning protected areas	June 30, 1994	MEFP/DFFC
- Preliminary steps to gazette the project sites	June 30, 1994	DFFC
- Mid-Term Review mission	June 30, 1995	PMU
- Mid-Term Review report	September 30, 1995	PMU



Implementation Schedule (Ct'd)

- Opening of project account	September 30, 1995	PMU
- Enactment of new legislation concerning protected areas	December 31, 1995	MEFP/DFFC/MEF
- Establishment of Trust Fund	December 31, 1995	MFPE
- Establishment of permanent national structure in charge of reserves	December 31, 1995	MFPE
- Adoption of legal statutes for the project priority sites	December 31, 1995	
- Full government staff deployment in	December 31, 1995	
- Project Completion Report project priority sites	March 31, 1997	

Legend:

M/E	Monitoring and Evaluation
PMU	Project Management Unit
DFFC	Direction of Flora and Fauna Conservation
MFPE	Ministry of Economy, Finance and Planning
MEF	Ministry of Water and Forestry
MDST	Ministry for Technical and Scientific Development
TSC	Technical Steering Committee
CERVE	National Herbarium
CERGE	National Geographic and Cartographic Center

REPUBLIC OF CONGO  
CONGO WILDLANDS PROTECTION AND MANAGEMENT PROJECT

Environmental Analysis

**I. Issues raised in the Environmental Analysis**

1. Long-term Biodiversity protection. Overall, the project will have a positive impact on the conservation of Congo's biodiversity. It should be viewed as a baseline catalyst to long-term biodiversity conservation in Congo. The positive impacts from the GEF will be greater protection and management of biodiversity than currently exists in Congo. If large tracts of forest and wetlands are legally set aside for strictly biodiversity conservation then a major global contribution will have been made by the GEF. However, it is very important to clarify that these reserves should not be viewed as the only areas in need of biodiversity conservation. Rather, extensive surveys and management actions will need to be undertaken to identify and conserve biodiversity throughout Congo including within the UFAs.
2. Sustainability. Some kind of a professional Congolese staff and infrastructure should emerge, although this will depend upon the GEF's capability to provide for recurrent costs after the four-year period of the Congo GEF. The ultimate success of the project will depend upon the capacity of Congo to continue biodiversity conservation after the GEF funding expires. A major risk and thus environmental impact could be the folding of the project after the GEF's money has been spent and what little is earmarked for a trust fund cannot sustain the initiative in the long term.
3. Local populations. The concerns of local populations not yet weaned from poaching and other resource extraction in reserves will have to be mollified. Local populations, especially in the vicinity of most existing reserves, may be disadvantaged by a cut off of traditional sources of food and other products. Proposed GEF studies may be able to address this issue and examine alternatives. In general, there will have to be some allowance or mitigation for hunting and other resource extraction by indigenous peoples in protected areas. The rate of game meat and other extractions will have to be determined in each reserve.
4. Environmental assessments. Detailed management plans must be developed for each reserve and those management plans subjected to an environmental assessment.
5. Inclusion of other areas. The project needs to emphasize that more biodiversity probably needs to be protected outside of the GEF sites. The GEF is a catalyst for biodiversity conservation. Regarding protected areas, it would be advantageous for the GEF to condition the grant with assurances for the establishment of more reserves in Congo. Although resources may be stretched thin, the GEF could still call for the establishment of a protected area in the Mt. Nabemba-Garabinzam area.
6. Relationship between the GEF and other IBRD projects. It should be clear that the Congo GEF biodiversity conservation should not be viewed as mitigation for other natural resource management endeavors by multilateral and bilateral organizations. The GEF does not free other Bank actions in Congo, for example, from looking out for biodiversity in the EAs for those actions. The GEF is not a biodiversity mitigation bank which future or concurrent Bank development actions (e.g., road building, logging, planning, etc.) can draw from.


















7. Training. Biodiversity conservation is a very technical matter and will require numerous university-educated Congolese as well as vocational training of technicians, park guards, etc. Completion of the wildlife school in Garoua, Cameroon may be sufficient for a chef de poste with a high school education but the conservator of a protected area should at least be a college graduate. The Congo GEF should consider promoting a wildlife and fisheries or similar conservation department, or at least some ecology and natural resource management classes, at the university in Brazzaville. In addition, one of the protected areas could be suitably equipped to serve as a university field station or training site for students. Peace Corps volunteer teachers could be employed at the university and field level.
8. Monitoring. Given the current political instability and indebtedness of Congo and the lack of trained personnel in Congo, project monitoring by the Bank and the Project Management Unit will be crucial to success.
9. Consultation Meetings. The EA process is supposed to consider the views and recommendations of Congolese and local NGOs. Such consultations are vital to increase local cooperation and understanding. The inclusion of another 1.5 million ha of land into a system of protected areas is a major decision affecting Congo's future. At a time when Congo is moving toward democracy, public participation should be encouraged. The indigenous people, who live near or inside of existing and proposed protected areas, may rely upon game meat and fishing in those areas and may want to voice their opinions on the establishment and management of protected areas. Those living near or inside of existing protected areas may view their use of those areas as part of their livelihood even if their decade-long use of those areas may have been illegal.
10. To date there have been several discussions, including the appraisal mission, with Congolese officials. These appear adequate for the general approach of the GEF. Some international NGOs which will implement the GEF have been working with Congolese for several years and have become familiar with part of the socio-economic setting in which reserves must function. The Man and the Biosphere Dimonika site evidently has paid little heed to local aspirations and much work and confidence building will be required during the management plan formulation. It is during the formulation of management plans for each of the reserves that the most fruitful interchange will take place to make local populations part of reserve management.

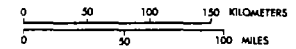
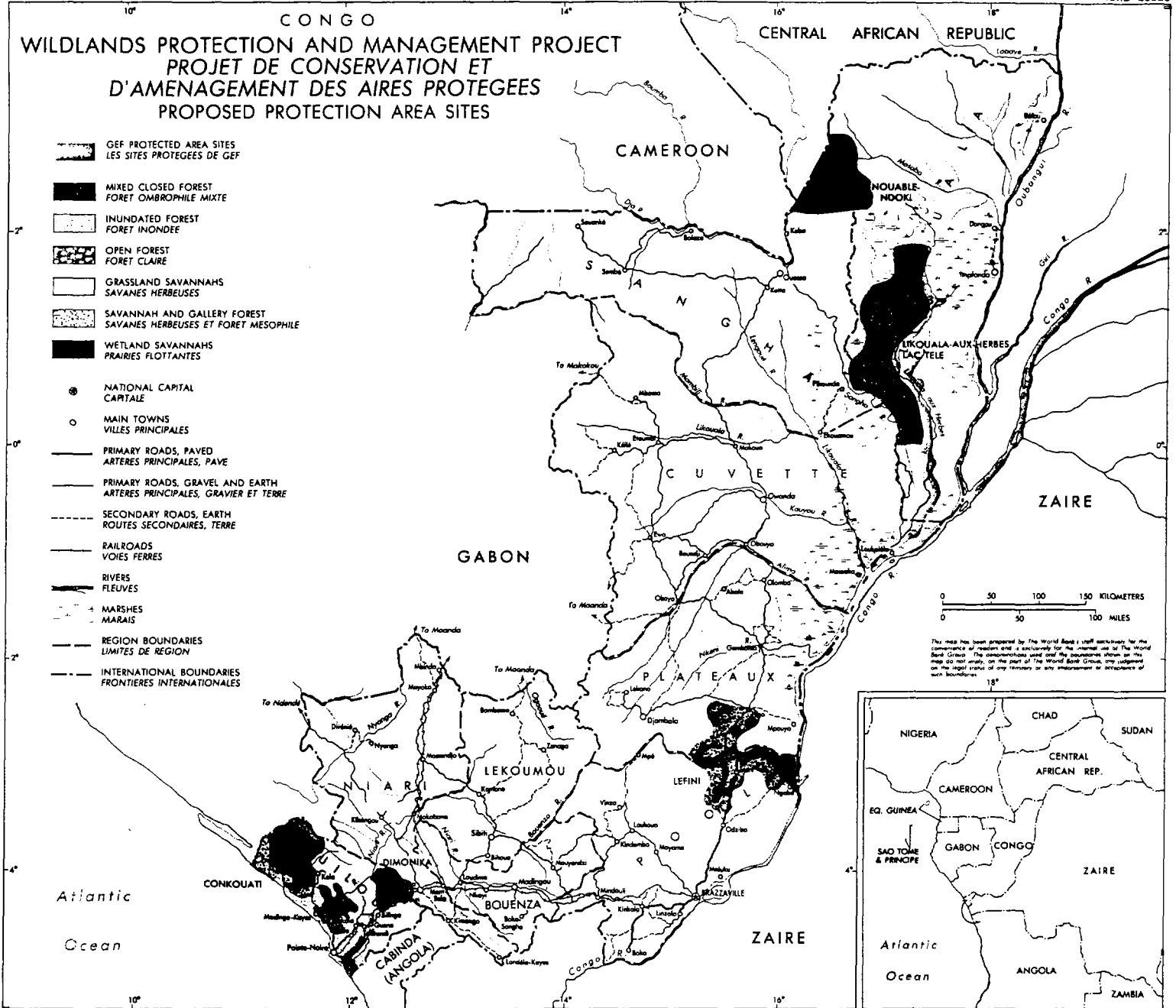
## II. How the issues raised will be dealt with in the project

1. Long-term Biodiversity protection. The Congo GEF project would be the first in a series of interventions in the Congo to protect biodiversity. The project would act as a catalyst to attract other donors and projects. The establishment of a trust fund would also reinforce the country's capacity for sustainable biodiversity protection.
2. Sustainability. This issue will be addressed through several means: (a) the establishment of a trust fund; (b) the development of economic alternative activities; and (c) the application of Government resources which are available for the reserve protection, but which have never been systematically used.
3. Local populations. The reserve management plans would include designating core areas where no hunting or commercial extraction would be permitted and multiple use areas and buffer zones where some subsistence hunting and resource extraction would be permitted. The activities planned at the reserve level would include the development, with the local communities, of alternative activities to be funded through the project, and/or by other donors and in conjunction with other projects (in particular the National Agriculture Extension Project).

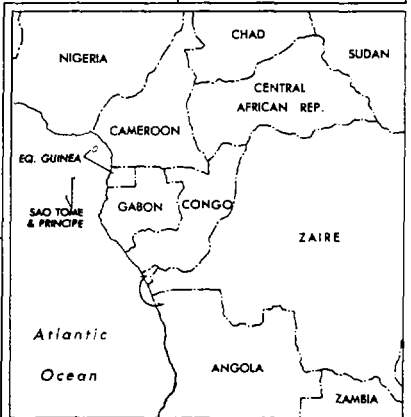
4. Environmental Assessments. The management plans and work programs for each reserve would be submitted to the Technical Steering Committee for review at least six months prior to execution. If any activity poses a potential environmental threat, the TSC would require an environmental assessment before implementation.
5. Inclusion of other sites. The PMU and the herbarium would work together to identify areas outside the core five GEF sites suitable for inventories and surveys. These areas will include the Mt. Nabemba-Garibenzam, Mt. Fouari and Massif du Chaillu areas. The gazetting of Mt. Nabemba-Garibenzam would have to be preceded by a series of inventories and sociological studies to establish where the limits of the reserve should be. The PMU would begin these preliminary steps under the project with the goal of eventually gazetting the new areas.
6. Relationship GEF/IBRD project. The GEF project would not be viewed as mitigation for other possible IBRD or related projects. All other IBRD projects would follow the operational directives and guidelines put forth by the World Bank and would take into consideration all World Bank policies, including the new forest policy.
7. Training. The training component of the GEF project would focus primarily on guards, conservators and reserve personnel. This training would focus on-the-job training. A complementary project funded by the U.S. Government, the ATLAS project, will train higher level personnel and will fund undergraduate and graduate degrees for high-level decision makers in the field of natural resources and protected area conservation. In addition to this, Peace Corps volunteers would participate in reserve management in three reserves: Nouabalé-Ndoki, Conkouati and Dimonika.
8. Monitoring. The monitoring and evaluation component of the project will be an extremely important component of the project. A national specialist in the PMU would be in charge specifically of overseeing the Monitoring and Evaluation program. He/she would be assisted by international short-term consultants. At the reserve level, the program would be similarly designed and executed by trained staff, supported by the PMU and international short-term consultancies.
9. Consultation Meetings. Preliminary consultations with some local populations have been conducted, but further consultations will be required before management plans are designed. Given their importance, these are due to start before grant effectiveness under a special Project Preparation Advance (PPA).

# WILDLANDS PROTECTION AND MANAGEMENT PROJECT PROJET DE CONSERVATION ET D'AMENAGEMENT DES AIRES PROTEGEES PROPOSED PROTECTION AREA SITES

-  GEF PROTECTED AREA SITES  
LES SITES PROTEGES DE GEF
-  MIXED CLOSED FOREST  
FORET OMBROPHILE MIXTE
-  INUNDATED FOREST  
FORET INONDEE
-  OPEN FOREST  
FORET CLAIRE
-  GRASSLAND SAVANNAHS  
SAVANES HERBEUSES
-  SAVANNAH AND GALLERY FOREST  
SAVANES HERBEUSES ET FORET MESOPHILE
-  WETLAND SAVANNAHS  
PRAIRIES FLOTTANTES
-  NATIONAL CAPITAL  
CAPITALE
-  MAIN TOWNS  
VILLES PRINCIPALES
-  PRIMARY ROADS, PAVED  
ARTERES PRINCIPALES, PAYE
-  PRIMARY ROADS, GRAVEL AND EARTH  
ARTERES PRINCIPALES, GRAVIER ET TERRE
-  SECONDARY ROADS, EARTH  
ROUTES SECONDAIRES, TERRE
-  RAILROADS  
VOIES FERRES
-  RIVERS  
FLEUVES
-  MARSHES  
MARAIS
-  REGION BOUNDARIES  
LIMITES DE REGION
-  INTERNATIONAL BOUNDARIES  
FRONTIERES INTERNATIONALES



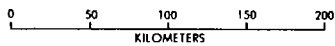
This map has been prepared by the World Bank staff exclusively for the convenience of readers and is intended solely for the internal use of the World Bank Group. The coordinates used and the boundaries shown on this map do not imply, on the part of the World Bank Group, any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries.



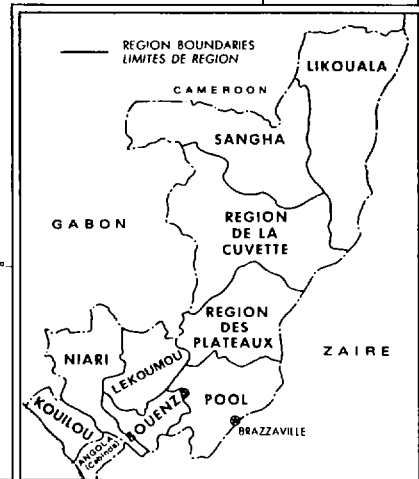
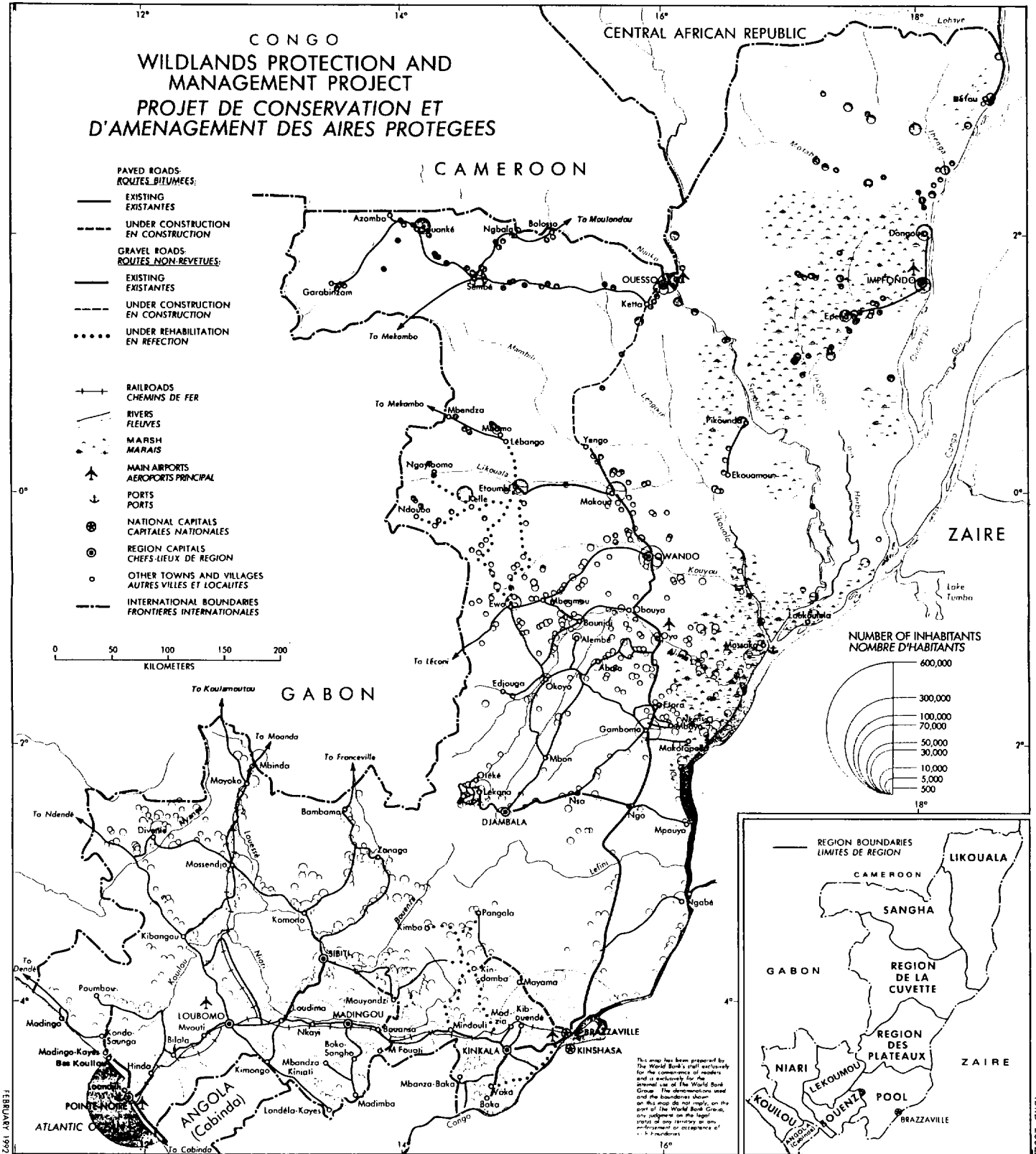
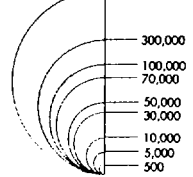


CONGO  
 WILDLANDS PROTECTION AND  
 MANAGEMENT PROJECT  
 PROJET DE CONSERVATION ET  
 D'AMENAGEMENT DES AIRES PROTEGEES

- PAVED ROADS - ROUTES BITUMEEES:**
- EXISTING EXISTANTES
  - - - UNDER CONSTRUCTION EN CONSTRUCTION
- GRAVEL ROADS - ROUTES NON-REVETUES:**
- EXISTING EXISTANTES
  - - - UNDER CONSTRUCTION EN CONSTRUCTION
  - ..... UNDER REHABILITATION EN REFECTION
- RAILROADS - CHEMINS DE FER**
- RIVERS - FLEUVES**
- MARSH - MARAIS**
- MAIN AIRPORTS - AEROPORTS PRINCIPAL**
- PORTS**
- NATIONAL CAPITALS - CAPITALES NATIONALES**
- REGION CAPITALS - CHEFS-LEUX DE REGION**
- OTHER TOWNS AND VILLAGES - AUTRES VILLES ET LOCALITES**
- INTERNATIONAL BOUNDARIES - FRONTIERES INTERNATIONALES**



NUMBER OF INHABITANTS  
 NOMBRE D'HABITANTS



This map has been prepared by the World Bank's staff exclusively for the convenience of readers and is not intended for the general use of the World Bank Group. The dimensions used and the boundaries shown on this map do not imply, on the part of the World Bank Group, any judgment on the legal status of any territory or any acknowledgment or acceptance of its frontiers.









Congo



US\$ 15



Printed on recycled paper