

## PROPOSAL FOR REVIEW

**PROJECT TITLE:** GHANA: NATURAL RESOURCE MANAGEMENT

**GEF FOCAL AREA:** Biodiversity

**COUNTRY ELIGIBILITY:** Ratified Convention on Biological Diversity  
on August 29, 1994

**TOTAL PROGRAM COST:** US\$53.6 million

**GEF FINANCING:** US\$8.9 million

**PROGRAM COFINANCING:** US\$44.7 million total  
\* IDA \$25 million  
\* Other Cofinanciers \$13.3 million  
\* Government \$6.4 million

**ASSOCIATED IDA PROJECT:** Same

**GEF IMPLEMENTING AGENCY:** World Bank

**EXECUTING AGENCY:** Ministry of Lands and Forests

**PROJECT DURATION:** 5 years

**GEF PREPARATION COSTS:** US\$25,000 PDF Block A Grant for Atewa  
Range Forest Reserve

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT  
INTERNATIONAL DEVELOPMENT ASSOCIATION

AFRICA REGION  
Western Africa

## Project Concept Document

GHANA  
Natural Resource Management Project

Date: 6/22/97			<input checked="" type="checkbox"/>	Draft	<input type="checkbox"/>	Final	
Task Manager: Robert Epworth			Country Manager: Serge Michailof				
Project ID:GH-GE45188	Focal Area: Forestry, Wildlife, Biodiversity		POC:				
Lending Instrument: SIL + GEF Grant			PTI:	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

<b>Project Financing Data</b>	<input type="checkbox"/>	<b>Loan</b>	<input checked="" type="checkbox"/>	<b>Credit</b>	<input type="checkbox"/>	<b>Guarantee</b>	<input checked="" type="checkbox"/>	<b>Grant</b>	<input type="checkbox"/>	<b>Other [Specify]</b>
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<b>For Loans/Credits/Others:</b>										
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Amount (US\$m/SDRm): US\$54m/...										
Proposed Terms:	<input checked="" type="checkbox"/>	To be defined	<input type="checkbox"/>	Multicurrency	<input type="checkbox"/>	Single currency				
Grace period (years):	10	<input type="checkbox"/>	<input type="checkbox"/>	Standard Variable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LIBOR-based	
Years to maturity:	40									
Commitment fee:	%									
Service charge:	%									

Financing plan (US\$m): <input checked="" type="checkbox"/> To be defined										
Source				Local			Foreign			Total
Government										US\$ 6.4m
Cofinanciers										US\$ 13.3m
IBRD/IDA										US\$ 25.0m
GEF										US\$ 8.9m

Borrower:										
Guarantor:										
Responsible agency(ies): Ministry of Lands and Forests (Forestry Department and Wildlife Department)										

<b>For Guarantees:</b>	<input type="checkbox"/>	Partial Credit	<input type="checkbox"/>	Partial risk
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Proposed coverage: n/a										
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Project sponsor: n/a										
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Nature of underlying financing: n/a										
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Terms of financing:										
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Principal amount (US\$m)										
Final maturity										
Amortization profile										

Financing available without guarantee:	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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If yes, estimated cost or maturity:										
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Estimated financing cost or maturity with guarantee:										
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## Block 1: Project Description

1. **Background.** Ghana's forest and wildlife policy which was updated under the on-going IDA-supported Forest Resource Management Project (FRMP) aims to manage the nation's forest and wildlife resources to maintain environmental quality and a sustainable flow of economic and ecological benefits. The policy attempts to strike a balance between preservation and utilization, and emphasizes the need for increased private sector and local community involvement in the management of forest and wildlife resources. At present, forest sector activity accounts for about 8% of GDP and 11% of total export value.
2. Ghana's forest and wildlife resources include many plant and animal species of production and conservation interest, and the country has a protected area system which is fairly representative of the nation's diverse ecosystems, with minor exceptions. National Parks and other protected areas managed by the Wildlife Department (WD) cover 5.7% of the country while Forest Reserves managed by the Forestry Department (FD) cover 11.6% of the national territory. The intact tropical moist forest is estimated to cover about 2 million hectares, of which 80% is within Forest Reserves. These reserves which are currently slated for timber production contain some of the richest areas for biodiversity. Many reserves are linked by forested corridors and form a mosaic on the landscape which, if effectively managed, has potential for maintaining viable populations of large forest dwelling species such as elephants, bongo, and primates.
3. Two thirds of Ghana's reserved forests are in the humid south and comprise the so-called high forest zone. These have benefitted from strong external assistance leading to considerable improvement in the technical, environmental and socio-economic aspects of their management over the past decade. Deforestation, estimated by the Government at 22,000 ha/year consumes about 5% of the non-reserved forest cover annually, and progress in managing the reserved forest estate is threatened by the progressive depletion of timber stocks from these non-reserved areas which presently yield an estimated 85% of the present timber harvest. To resist this pressure, forest sector policy and institutions will require considerable strengthening and the economic contribution of forest reserves to local livelihoods will need to be increased if current local support for maintaining the existing reserves is to be sustained. Reforestation of degraded reserves could play an important role in meeting timber needs and increasing revenues captured by rural populations.
4. In contrast to the high forest reserves, savannah forest reserves and surrounding woodlands are generally poorly managed and contribute relatively little to the income of local people or to the national economy. Many of these reserves could, however, provide important sustenance to local communities if management were better tailored to their needs. Through involving local people more actively in management of these savannah reserves and surrounding woodlands, wood harvesting and marketing, control of grazing and fire protection, management could be substantially improved, generating substantial socio-economic and environmental benefits (and government revenue) in the process. Improved forest reserve management and land use planning will also be needed to guide development away from the most fragile territories recently opened up for potential human settlement through eradication of *Onchocerciasis*.
5. **Project Development Objectives.** The project's central objective would be to promote and strengthen public and private sector efforts to achieve socio-economically and ecologically sustainable use of national forest and wildlife resources. The project's specific objectives would be to: (i) improve the policy and regulatory environment for high forest management and timber industry development; (ii) promote local community involvement in sustainable management of the high forest and savanna woodland zones; (iii) improve management of wildlife resources while increasing their contribution to local livelihoods and economic development; and, (iv) with GEF support, implement the National Forest Protection Strategy to enhance conservation of globally significant biodiversity in priority reserves.
6. **Global Environment Objectives.** The global environment objective is to better conserve the rich biodiversity of Ghana's forests. Specific objectives are to: (i) protect a significant portion of forest biodiversity through implementing an ecosystem approach to management within the high forest zone that involves strengthening management of national parks and taking selected high-biodiversity forest reserves out of production; (ii) improve knowledge of the distribution and status of rare, threatened and endemic species through targeted surveys to better focus conservation measures; (iii) to enhance biodiversity protection within multiple-use production forests through exclusion of critical habitats from logging; and, (iv) ensure sustainability and preserve genetic diversity within non-timber forest species that are collected by rural populations

for medicinal and consumptive uses by improved data collection, monitoring, harvest regulation and sustainable management within forest reserves.

7. Project Description. In support of these objectives, the project will adopt a broad sectoral lending approach and would implement the following components:

(a) *Forest Sector Policy and Institutional Reform*. The project would assist the government to design and implement further sectoral policy and institutional reforms to enhance revenue capture and improve sustainability of the forest industry through streamlining mandates and expenditures of forest sector agencies and strengthening their implementation capacity. Various sector agencies are expected to devolve a considerable share of their responsibilities to the private sector. The project would assist private sector producer associations, non-governmental organizations and community-based organizations, to improve timber production and processing operations. These activities would complement the restructuring of the Forestry Department into a more efficient service providing agency being financed in parallel by ODA.

(b) *Participatory and Sustainable Management of Production Forests*. The project would assist the government in strengthening its capacity for community-based participatory management planning and for implementing improved management practices to enhance the environmental sustainability of production forest management.

(c) *Savannah Woodland Management*. The project would: (i) amend the regulatory framework for harvesting and processing woodfuels to facilitate design and implementation of participatory management plans for savannah woodlands both within and outside of forest reserves; and (ii) strengthen the extension capacity of the rural Forestry Division of the FD, the agro-forestry unit of the Ministry of Food and Agriculture, and the technical capacity of local communities and the district level environmental and planning committees for integrated management of soil, water, and natural land cover.

(d) *National Parks and Wildlife Resource Management*. The project would: (i) strengthen WD management capacity for national parks and protected areas; (ii) promote private sector capacity development and involvement in wildlife-related economic activities such as ecotourism and game ranching; and, (iii) support the implementation of management plans for selected protected areas by the WD, the private sector and local communities.

(e) *Forest Biodiversity Protection*. With GEF support, the project would implement key elements of the National Forest Protection Strategy and the draft National Biodiversity Conservation Strategy. Specifically, the project would: (i) strengthen the biological conservation and management capacity of the FD; (ii) protect priority conservation areas within existing production forest reserves; (iii) establish selected reserves as Special Biological Protection Areas that will be taken out of production; (iv) initiate pilot activities to generate revenues from activities other than logging in selected forest reserves including ecotourism, sustainable production of non-timber forest products, and restoration of degraded forest lands through commercial plantations. The project will build on the five-year experience of the ODA-funded Collaborative Forest Management Initiative in participatory forest management and conservation education.

8. Project Duration and Scope. The project would be implemented over five years with an initial 18 month phase for institution of critical policy reforms identified previously, institutional restructuring, and improving the enabling environment for implementation. A second phase of 3 1/2 years duration would focus on implementation of management plans and other specific investments. The GEF financed biodiversity component would finance development and implementation of community-based management plans for areas representing approximately 25% of the reserved forest estate (approximately 400,000 ha) that would be removed from timber production for protection of biodiversity and other environmental values (such as soil and watershed protection).

9. GEF-financed Activities. The focus of GEF-financed activities is to measurably improve management of endangered or threatened species, natural communities and indigenous forests under a program of collaborative management that explicitly includes rural residents as full parties to the management “contract”. To this end, GEF would finance costs of: (i) participatory management planning and implementation of management plans for priority reserve areas; (ii) technical support for the identification and demarcation of protection areas; (iii) improved surveillance and independent monitoring of biodiversity resources and the status of project financed interventions, (iv) applied research aimed at defining sustainable

levels of selective resource harvesting that are compatible with protection of endangered species and critical habitats ; (v) improved management of national parks established for the protection of outstanding natural diversity; (vi) investment in reforestation of degraded forest lands both within and outside of reserves to reduce pressure on natural forests, and in other revenue generating schemes to provide alternative incomes to local communities who would lose revenues from areas removed from production for biodiversity protection.

10. Complementarity of IDA and Other Donor Investments. The IDA and bilateral financiers will bear the main investment costs of improving management of national parks and resource reserves, institutional strengthening of the forestry and wildlife departments and other agencies, implementation of community-based management plans for production reserves, and improved land management at district level. GEF investments are targeted at the incremental cost of activities that directly enhance biodiversity protection above the level that could be achieved with domestic resources or for which the country would be willing to borrow and to provide environmentally compatible alternative livelihoods for rural residents who would otherwise bear the opportunity costs of enhanced biodiversity protection.

**2. Project components:**

Component	Indicative Costs (US\$M) and Cofinancing Plan					% of Total
	GOG	GEF	IDA	COF		
Policy reform and associated institutional restructuring of public sector management and regulatory bodies	Institutional Strengthening	1.2		3.0	1.5	10.7%
	Subtotal:	5.7				
Participatory and sustainable management of production forests and restoration of degraded reserves.		GOG	GEF	IDA	COF	45.5%
	Capacity Building	1.4		2.6	1.9	
	Operational Support	1.2		7.6	8.0	
	Studies and Planning	0.2		0.9	0.6	
Subtotal:	24.4					
Savannah woodland management		GOG	GEF	IDA	COF	17.5%
	Capacity Building	0.1		0.5	0.7	
	District/ Village Support	0.2		1.2	0.4	
	Operational Support	0.7		5.4	0.2	
Subtotal:	9.4					
National Parks and Wildlife Resource Management		GOG	GEF	IDA	COF	11.2%
	Studies and planning	0.1	0.3	0.8		
	Operational Support	0.5	0.8	3.0		
	Monitoring and evaluation		0.5			
Subtotal:	6.0					
High Forest Biodiversity Protection		GOG	GEF	IDA	COF	15.1%
	Community-based Management Planning	0.2	1.5			
	Operational Support	0.6	3.0			
	Alternative Livelihood Investments		2.8			
	Subtotal:	8.1				
Total		US\$ 53.6m				

**3. Benefits and target population:** The project aims to: (i) improve the capacity of public and private sector institutions to implement recent and proposed policy reforms through institutional restructuring and adjustment of economic incentives; (ii) promote local community involvement in sustainable management of savanna woodlands and high forest areas; (iii) improve management of wildlife resources and increase their contribution to economic development and local livelihoods; and, (iv) enhance conservation of biodiversity within priority Forest Reserves and elsewhere with significant involvement of local communities. Institutional restructuring within the public sector is aimed to improve sustainability of public sector management efforts by streamlining government expenditure and improving forest and wildlife resource rent capture and collection. Private sector participation in reforestation and wildlife resource management will increase the revenues captured and retained by rural communities living adjacent to the reserves. Improved private sector processing efficiency within the wood processing and finishing industry would benefit both rural workers and artisans by increased employment through investments in secondary processing (due to guaranteed supplies of raw material) and a higher level of sustainable forest industrial activity in the medium to long term through enhanced efficiency of resource utilization. Environmentally sustainable woodland management in the savanna zone will enhance rural incomes as well as generating ancillary environmental benefits to rural communities in the form of improved soil, water and wildlife habitat management. Community participation in wildlife resource management and development of compatible uses such as ecotourism will increase locally retained revenues from wildlife resources. Improved conservation of biodiversity will ensure a sustainable supply of non-timber forest products such as medicinal plants which contribute differentially to the health and well-being of the poorest population segments. Expected global benefits include the maintenance of genetic diversity within natural populations of commercially valuable timber species, conservation of regionally and locally endemic species within their native habitats, and preservation of unique ecosystems that characterize the region through effective landscape level management.

**4. Institutional and implementation arrangements:** The project would be implemented by the Ministry of Lands and Forests through the proposed Forestry Service and the Wildlife Department and, at local level, through the district administrations, community associations and NGOs. Participatory management of savanna woodlands and forest reserves has been tried and shown promise in neighboring sahelian countries such as Burkina Faso and Niger. In Ghana, pilot participatory management programs within the high forest zone have also been initiated by the Collaborative Forest Management Unit within the Forestry Department. Ghana has a rich tradition of community involvement in management of woodland and wildlife resources and an active non-governmental organization community. These cultural traditions provide a basis for expanding the formal involvement of local organizations in wildlife and forest reserve management. The presence of an active and growing community of conservation NGOs, and the project's intention to engage this community in monitoring and evaluation of program performance as well as in key aspects of program implementation will improve transparency, accountability and, ultimately performance, of the public agencies responsible for executing the program.

## Block 2: Project Rationale

<p><b>5. CAS objective(s) supported by the project:</b> The CAS objectives specifically targeted are: (a) poverty reduction through rapid economic growth; and, (b) capacity building within the private sector for sustainable natural resource management.</p>	<p><b>Document number and date of latest CAS discussion:</b> April 1997</p>
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**GEF operational Strategy/Program Objective addressed by the Project:** Biodiversity/Forest Ecosystems

The project addresses the conservation of tropical forest ecosystems by strengthening the Ghanaian network of conservation areas and reinforcing the development of sustainable use and management systems for biodiversity resources. By financing the incremental cost of addressing global and regional biodiversity conservation priorities within the framework of the National Biodiversity Strategy and the National Forest Protection Strategy, GEF funding will complement IDA and bilateral donor-financed programs for development of forest production systems that are environmentally and socially sustainable, and for management of protected areas.

The project targets the approximately 8% of moist tropical forests in Ghana that, based on a comprehensive national forest inventory, rank highest, globally, in term of their importance for biodiversity. This systematic evaluation of threat and rarity, covering more than 1000 tree species, carried out under ODA-financed Forest Inventory and Management Project is unparalleled in the West Africa region in terms of its scope and comprehensiveness. Protection of these forests would secure representation of a significant fraction of the biodiversity of the upper Guinea-Congolese forest formation within a well-connected network of forest reserves. Additional priorities to be addressed by the project include the biologically unique southern dry forests of the Dahomey Gap that separates the two major high forest formations of western and central Africa, and the montane outlier forest of the Kyabobo highlands, the last disjunct forest within the savannah corridor that is the only place where elements of the eastern and western forest blocks intermingle, forming a globally unique composite biota.

**6. Main sector issues and Government strategy:** Within the forestry sector, the key issue is the rate of timber extraction from reserves and non-reserve areas which, at present, greatly exceeds the sustainable annual allowable cut. The key objectives of Government policy are: (i) ensuring a sustained and adequate supply of forest products; (ii) preventing further environmental degradation due to forest depletion; and, (iii) stimulating community involvement in management of the resource and enhanced economic well-being of rural residents. Specific policy and institutional reforms that were identified to address these objectives are directed at four areas: concessions allocation procedures, forest revenue policy, trade policy, and restructuring of forest sector institutions. Technical and analytical studies to design a coherent sector-wide program of policy and institutional reforms have been systematically undertaken. These include adoption of a new National Forest and Wildlife Policy in 1994 based on three pillars: protection, production and involvement of rural people; and development of a system-wide master plan to implement the policy. The proposed project would draw together a coordinated donor response to finance implementation. GEF financing would cover incremental costs of priority actions identified in the National Biodiversity Strategy and the National Forest Protection Strategy, in particular: (i) safeguarding genetic diversity and diversity of indigenous species through an ecosystem approach to management within the high forest zone; (ii) improving knowledge of the distribution and status of rare, threatened and endemic species through targeted surveys of rare, threatened and endangered fauna; (iii) enhanced protection of critical areas for migratory species through improved monitoring and habitat management; and, (iv) ensuring sustainability and preserving genetic diversity within non-timber forest species that are collected by rural populations for medicinal and consumptive uses by improved data collection, regulation of harvesting, and proactive management for sustainable production within forest reserves.

[Note: Of the issues identified in paragraph 6, specify those to be addressed by the project, indicating the strategic choices, e.g., private vs. public options, as assessed in the economic and sector work of the Bank and other development agencies.]

**7. Sector issues to be addressed by the project and strategic choices:** The project aims to sustainably increase the

supply of forest products through project interventions to: (a) increase efficiency of the wood processing and milling industry; (b) stimulate private investment in reforestation of degraded forest reserves; (c) support community-based high forest, savanna woodland, and wildlife resource management; and, (d) support improved management and monitoring of forest biodiversity through the establishment of special biological protection areas within the existing system of forest reserves that explicitly incorporate biodiversity conservation as an integral management objective. These sectoral issues are closely interlinked. Increasing efficiency of the wood processing industry will require an increase in private capital investment that will only be forthcoming if reliable supplies of raw materials can be assured. Reforestation of degraded reserves will be most efficiently achieved through private sector involvement in plantation development that would contribute to more secure resource tenure and access to future supplies of raw materials. Community-based forest and woodland management would both increase the economic returns realized by rural residents and provide a direct involvement of stakeholders with most to gain (or lose) in terms of environmental benefits from improved management. Enhanced management of biodiversity resources, including better fire control and assurance of access to sustainable supplies of non-timber forest products would benefit rural communities in both the short and long term as well as preserving future options for the local, national and global communities at large.

**Rationale for GEF Support:** Ghana ratified the global Convention on Biological Diversity in 1994. The project supports the objectives of the convention by promoting both conservation and sustainable use. The project is consistent with the GEF Operational Strategy, especially the Operational Program on Forest Ecosystems. The project focuses on *in situ* conservation in tropical forests that have been identified as one of the 200 most globally important ecoregions. The project supports conservation by taking forest reserves of high biological value out of production and giving them protected status. At the same time, it encourages biodiversity conservation and environmentally sustainable use within production forests by promoting management practices and logging regimes that recognize and protect biological “hot spots” within concessions. In addition, the project will support the establishment of forest plantations to extend the overall forest estate, provide an alternative source of forest resources, and to create forested corridors linking fragmented blocks of natural forest.

The project is consistent with COP guidance as it focuses on conservation and sustainable use of critical ecosystems and threatened endemic species, and supports the active involvement of local communities as managers and beneficiaries of better forest management. It responds to COP-3 guidance through promoting conservation and sustainable use through capacity building, economic incentives and alternative livelihood opportunities for local communities, and by incorporating biodiversity issues and improved management practices throughout the forestry sector.

8. Project alternatives considered and reasons for rejection:  To be defined

9. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned).			
<u>Sector issue</u>	<u>Project</u>	<u>Latest Form 590 Ratings</u>	
		(Bank-financed projects only)	
		<u>IP</u>	<u>DO</u>
<u>Bank-financed</u>			
Sustainable forest management	Forest Resource Management Project	S	S
Strengthen environmental management capacity	Environmental Resource Management Project	S	S
<u>Other development agencies</u>			
Maintain ecological integrity of globally important coastal wetlands	Coastal Wetlands Management Project (WB/GEF)	S	S
Savannah woodlands management, soil and water conservation	Soil and Water Management Component of the G.E.R.M.P.(cofinanced by Denmark/DANIDA)		
Policy reform in the forestry sector and institutional strengthening of the Forestry Department	Forest Inventory and Management Project (UK/ODA)		
Biodiversity conservation and sustainable forest management	Block-A Grant for Preparation of the Atewa Range Management Plan (GEF)		
Identify national priorities related to biodiversity conservation and management	National Biodiversity Strategy in preparation, coordinated by the Ministry of Environment, Science and Technology (M.E.S.T.)(UNEP/GEF)		
Improve management of biodiversity information	Biodiversity Data Management (M.E.S.T.) (UNEP/GEF)		
Analyze and prepare policy and legal framework for bioprospecting	Bioprospecting Policy Study (M.E.S.T.) (WB/GEF)		
Biodiversity conservation and ecotourism development	Central Region Natural Resource Conservation and Historic Preservation Project (USA/USAID)		
Development and management of Bia and Nini-Suhien National Parks	Protected Areas Development Programme (EU)		
Conservation and sustainable utilization of mangrove forests in the Volta Delta	Volta Mangrove Management Project (UK/ODA)		
Preservation of sacred groves and related cultural heritage	Environmental Protection Agency (UNESCO/MAB)		
Protected area buffer zone management and protected area inventory	Bia National Park Inventory and Buffer Zone Management Plan (UNESCO/MAB)		
Biodiversity conservation	UNDP Small Grants Programme (GEF)		
Transition forest and savannah woodland protection and management	Forest Protection and Resource Use Management Project for the Volta Region (Germany/GtZ)		

[Note: Lessons learned from completed and ongoing projects financed by the Bank and other development agencies.]

**10. Lessons learned and reflected in proposed project design:** The Forest Resource Management Project (FRMP) became effective in November of 1989 and is due to be completed by June, 1997. After a slow start, the pace of implementation increased in 1993. Since then, a number of key policy reforms have been implemented in the areas of logging concessions, forest revenue policy and administration. Specifically, the FRMP has: (i) strengthened management capacity within the Ministry of Lands and Forests leading to improvements in forest sector monitoring and regulation; (ii) improved timber royalty collection and disbursement to local traditional authorities (Stools); (iii) improved capacity of the Wildlife Department for protected area (PA) management and facilitated development of ten PA management plans; (iv) achieved limited progress in on-farm tree planting through reorienting the Agroforestry Unit towards supporting community nurseries and implementing a promising pilot for locally-based savanna woodland management in the Upper East Region through the Rural Forestry Division; and, (v) strengthened research and training capacity through support to the Forestry Research Institute of Ghana and the Institute of Renewable Natural Resources. Shortcomings of the FRMP included initial failure to address some critical policy issues such as the continued existence of inefficient timber processing industries (some state-owned and managed), overlap between the mandates of various forest sector agencies, and the high running costs and uncertain performance of the Forest Products Inspection Bureau and the Timber Export Development Board. The current project will streamline implementation through supporting only the key sectoral agencies and addressing essential policy, institutional and environmental issues through a major component on institutional restructuring and policy reform that builds on ongoing analytical work under the Forest Management Initiative supported by ODA over the past three years, and addressing the central issue of inefficiency in the wood processing industry.

The Environmental Resource Management Project (ERMP) became effective in March, 1993 and is due to close in December, 1997. The project explicitly recognizes the intersectoral nature of environmental management and has provided support for institutional strengthening of the Environmental Protection Agency (EPA) in its central role as a coordinating and regulatory body to stimulate reforms within the sectoral ministries and agencies to improve environmental monitoring and management. Among the principal achievements of the Ministry of the Environment, Science and Technology that were supported by the E.R.M.P., are the development of a coherent body of regulatory guidelines, standards and monitoring protocols that have been adopted for implementation by the sectoral agencies. The principal lesson from the project has been the value of investing in strengthening capacity of sectoral agencies for environmental management and thereby mainstreaming the implementation of environmental protection as a routine element of sectoral activity. This project would build on this experience by targeting improvements in policies and practices of forest management to conserve biodiversity and reverse forest degradation to be implemented by the sectoral agencies, with the EPA maintaining its role as an independent monitoring agency and developer of best practice guidelines and standards.

The Coastal Wetlands Management Project, (CWMP) financed by the GEF as an integral component of the ERMP, within the same time frame, has addressed the issue of maintaining the ecological integrity of coastal wetland ecosystems under a multiple use management regime, with significant involvement of local stakeholders in both planning and implementation. This project has enabled the Wildlife Department to gain valuable experience in locally-based cooperative management of protected areas, with the goal of safeguarding globally important biodiversity within a management regime that recognizes the use and access rights of local residents, and seeks to stimulate economic growth that is compatible with maintaining global and national conservation values.

Recommendations from the Technical Reviewer (Annex 5) are being taken into account and incorporated into the project design. The issue of sustainably increasing timber supply is being addressed through exploring private sector incentives that link guarantees in raw material supply to investment in reforestation. The possibility of attracting private capital investment in plantations for carbon sequestration credits is also being explored.

Plans for institutional restructuring and strengthening under the project call for substantially strengthening the role of the Collaborative Forest Management Unit within the Forestry Department and development of more effective community outreach capacity within the Wildlife Department. The latter will involve retraining and redeployment of some wildlife

personnel to the district level where they will work with the Forestry Department and local communities in developing appropriate regulatory mechanisms for bushmeat harvesting, and surveillance procedures for monitoring endangered species such as primates. The Collaborative Forest Management Unit has initiated pilot programs with several communities that involve licensing of community groups for harvesting and limited propagation of non-timber forest products within production forest reserves and have met with some initial success in involving communities effectively in monitoring and surveillance of timber harvest and hunting within reserves. GEF investments will complement institutional strengthening and training of Forestry and Wildlife Department personnel financed under the associated IDA credit and will finance extension to the community level of procedures for self-monitoring and setting sustainable limits on non-timber forest product harvests.

Enhancing protection of biodiversity in Special Biological Protection Areas, to be effective, will need to be based on negotiated agreements with local communities that tie some benefits to verifiable performance criteria. This may be achieved through a system of linking eligibility for alternative livelihood investments to “good” performance in the short term and, in the medium term, through “vesting” of the community in project-financed plantation development schemes with vesting linked to performance. In the long term, the whole issue of “sustainability” really hinges on the ability to link effective management by local communities (with appropriate technical support provided by government) to a sustainable stream of benefits that are recognizably linked to performance in maintaining the health and viability of the biodiversity resources. In the medium term, the link between plantation investments (and community realized revenues) and protection of the natural landscape may be the most viable method of moving toward this linkage.

**11. Indications of borrower commitment and ownership:** Adoption in 1994 of a new Forest and Wildlife Policy and subsequent (1996) preparation of a Forestry Development Master Plan provide a firm foundation for implementing this project. The Master Plan includes strategies for forest protection, forest production and increasing communities participation on forest and woodland management and in revenue sharing from forest resources. The Forest Protection Strategy defines the Governments approach to safeguarding biodiversity in the forest realm. Under the current Forest Inventory and Management Project and the FRMP, the MLF has identified three critical reforms necessary to upgrade sector performance: (i) reorganization of the Forestry Department into a responsive, service-oriented agency and consolidation of rent and fee collection within a single institution; (ii) reform of lease and concession system to allow for private sector investment in forest restoration within degraded reserves; (iii) commitment to implementing incentives for private investment in improving efficiency of the wood processing industry. Government commitment to implementation of the biodiversity conservation components of the proposed project include the preparation of a Protected Areas Systems Plan under the current IDA-financed Forestry Project, completion of a national inventory of priority sites for conservation of forest tree species, and inclusion of biodiversity protection and maintenance of bioquality as key elements of the sector development master plan. Assurances would be sought at appraisal that the Special Biological Protected Areas to be established with GEF financial support would be gazetted with appropriate restrictions on uses to safeguard the biodiversity they are designed to protect.

**12. Value added of Bank and GEF support:** The project would follow a broad sector approach to investment lending, and be implemented over five years, in two phases. The initial phase of 18 months duration would focus on implementing essential policy and institutional reforms, building on earlier advances in these areas, and on improving the enabling environment for private sector and community involvement in savanna woodland and wildlife management, although implementation of collaborative management programs in the high forest would start immediately, based on pilot experience gained over the past three years under the ODA financed F.I.M.P. A number of bilateral (e.g. ODA, GtZ, Dutch, DANIDA) and multilateral (AfDB, EU) donors are currently involved or interested in financing activities within the sector. Leadership by the Bank and IDA would encourage adoption of necessary structural reforms to improve sectoral performance overall instead of a piecemeal approach through individual and limited projects dealing with specialized components of the sector. Inclusion of GEF financed enhancement of biodiversity conservation as an integral part of the overall sectoral development master plan will ensure that maintenance of bioquality is well coordinated with the overall program for ensuring sustainable management of forest resources.

### **Block 3: Project Preparation**

13. Has a project preparation plan been agreed with the borrower (see Annex 2 to this form)		<input checked="" type="checkbox"/> Yes Date Submitted: 5/19/97		<input type="checkbox"/> No Date Expected:	
14. Has borrower drafted a project implementation plan		<input type="checkbox"/> Yes Date Submitted: MM/DD/YY		<input checked="" type="checkbox"/> No Date Expected: 9/15/97	
15. Advice/consultation outside country department		<input checked="" type="checkbox"/> Within the Bank: AFTE1, AGRAF, ENVGC, IENPD, FAO/CP, private consultants		<input checked="" type="checkbox"/> Other development agencies: ODA, AfDB, DANIDA, GtZ, EU, USAID	
16. Issues Requiring Special Attention					
a. Economic					
<input type="checkbox"/> (list issues below, e.g., fiscal impact, pricing distortions, etc.)			<input type="checkbox"/> To be defined		<input type="checkbox"/> None
Economic evaluation methodology:	<input type="checkbox"/>	Cost benefit	<input checked="" type="checkbox"/>	Cost effectiveness	<input checked="" type="checkbox"/> Other: incremental cost analysis of GEF-financed activities (Annex 4)
b. Financial					
<input type="checkbox"/> (list issues below, e.g., cost recovery, tariff policies, financial controls and accountability, etc.)			<input checked="" type="checkbox"/> To be defined		<input type="checkbox"/> None
c. Technical					
<input type="checkbox"/> (list issues below, e.g., appropriate technology, costing, etc.)			<input checked="" type="checkbox"/> To be defined		<input type="checkbox"/> None
Implementation would include a pilot demonstration project for low impact logging. Best practice experience from Asia and Latin America would need to be adapted for implementation in the Western African context.					
d. Institutional					
<input type="checkbox"/> (list issues below, e.g., project management, M&E capacity, administrative regulations, etc.)			<input checked="" type="checkbox"/> To be defined		<input type="checkbox"/> None
<p>The project would be implemented by the Forestry and Wildlife Departments of the Ministry of Lands and Forests. The Ministry of Environment, Science and Technology and one or more Ghanaian registered NGOs would play a role in monitoring and evaluation of project implementation, in particular with regard to the GEF-financed biodiversity management component.</p>					
e. Social					
<input type="checkbox"/> (list issues below, e.g., gender, protection of indigenous and other vulnerable groups, etc.)			<input type="checkbox"/> To be defined		<input type="checkbox"/> None
<p><b>Local Consultation and Beneficiary Participation:</b> The project, in working with a broad range of stakeholders including national and local government, private sector and NGO representatives and local communities, will be characterized by a strong participatory approach from the outset. The project will build on lessons learned in community participation and management in the GEF-financed Coastal Wetlands Management Project and the community consultation approach used in GEF sponsored coastal zone management sector work. The following consultation and participation mechanisms are envisioned:</p> <p>(i) national and local government/private sector roundtables to discuss proposals for forest policy and institutional reforms;</p> <p>(ii) devolvement of responsibility for off-reserve savannah woodland management to local communities and consultation on management plans for savannah forest reserves with affected communities;</p> <p>(iii) consultation with NGOs and communities living near protected areas and forest reserves on proposed strategic and operation management plans through semi-structured interviews and public meetings;</p> <p>(iv) establishment of pilot community-managed revenue-generating activities other than logging in selected Forest Reserves</p>					

and protected area buffer zones;

(v) increased community employment through pilot private sector activities in and around protected areas.

**f. Resettlement**  
 (list issues below, e.g., resettlement planning, compensation payments.)     To be defined     None

No voluntary or involuntary resettlement is planned under the project. The projects aim is rather to effectively engage rural residents where they currently live in management and more sustainable exploitation of forest and wildlife resources. Investments in alternative livelihoods to compensate for foregone short term revenues due to adoption of a more restrictive management regime for high priority sites for biodiversity conservation would be channeled through community-based mechanisms to finance environmentally compatible development enterprises.

**g. Environmental**

i. Environmental issues:	Major:	<input type="checkbox"/> To be defined	<input type="checkbox"/> None
Other: see below	Other:		

ii. Environmental category:	<input checked="" type="checkbox"/>	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C
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Through its focus on sectoral policy, institutional reform, forest industry restructuring, reforestation of degraded reserves and biodiversity conservation, the project is expected to have more positive than negative impacts on the environment and a net positive effect, overall. A strategic sectoral EA is proposed to identify how changes in the forest industry supported by the project could effect the environment and to provide guidelines for best practices within the timber harvesting and wood processing industries to minimize negative effects. Infrastructure investments planned under the wildlife component in environmentally fragile areas would require full (Category A) environmental assessment and mitigation plans. The EA analysis will proceed in close parallel with project preparation so that findings can be incorporated into overall project support for strengthening capacity of the MLF to monitor, evaluate and mitigate environmental impacts of forest sector activities.

iii. Justification/Rationale for category rating:

A sectoral EA is needed to address the range of issues arising from the broad sectoral lending approach of the project and to ensure that guidelines and best practice procedures are developed and implemented in parallel with operational changes in the sector induced by the project. Because of the environmental fragility of some areas influenced by the project a rigorous assessment of potential impacts and practical mitigation measures is needed.

iv. Status of Category A assessment:	EA start-up date: 6/97
	Date of first EA draft: 9/15/97

Current status: Terms of reference prepared, international consultant recruited and team leader identified

v. Proposed actions: Sectoral EA leading to best practice guidelines and procedures to be adopted during project implementation, site specific EAs and mitigation plans to be prepared as needed.

vi. Status of any other environmental studies: The MLF has prepared and adopted a Forest Protection Strategy as part of project preparation and is currently implementing new interim control measures in non-reserve areas. The draft National Biodiversity Strategy is expected to be finalized and adopted by September 1997.

vii. Local groups and NGOs consulted: (List names): Ghana Wildlife Society

viii. Borrower permission to release EA:     Yes     No

ix. Other remarks:

h. Global Environmental: Global environmental issues including protection of endemic and globally or regionally rare, threatened or endangered species, safeguarding genetic diversity in tropical forest ecosystems through ecosystem-based management, sequestration of carbon through better fire protection, and conservation of mature forests will be systematically addressed by the project with the incremental costs of enhanced protection to be financed by GEF.

i. Participatory Approach	Preparation	Implementation	Operation
Cultivators/community groups	CON	COL	COL
Intermediary NGOs	CON	CON/COL	CON/COL
Academic institutions	CON	CON/COL	CON/COL
Local government	CON/COL	COL	COL
Other donors	IS/CON/COL	IS/CON/COL	IS/CON/COL
Concessionaires/ millers	CON	CON	CON

**j. Sustainability:** Government’s commitment in terms of sustaining policy reforms as well as staffing and funding of the project initiatives for the long term, and providing funding and other support after the project ends, is crucial. Success in developing a participatory approach involving all relevant stakeholders in project design and implementation is necessary if there is to be enduring project ownership by the beneficiaries. The overall project seeks to establish a balance between sustainable forest production and enhanced protection of globally significant biodiversity resources. Sustainability of biodiversity protection is ultimately linked to success in achieving sustainable production that is adequately meets local needs for forest products. The success of project components for reforestation of degraded reserves and policy changes to improve industry efficiency are inextricably linked with the sustainability of the proposed biodiversity protection measures. To this end, Government’s commitment to stabilizing sustainable harvest potential, increasing the share of benefits realized by rural communities and improving both the knowledge base and field capacity for effective stewardship of biodiversity resources through the implementation of an integrated sector-wide strategy will ultimately determine the sustainability of conservation achievements.

**k. Critical Risks** (see fourth column of Annex 1):

	<u>Risk</u>	<u>Risk Rating</u>	<u>Risk Minimization Measure</u>
Project outputs to development and global environmental objectives	(i) restructuring of forest management institutions is delayed or only partially implemented	low	(i) adequate consensus developed and assurance of high level government approval given during design and preparation
	(ii) management plans for forest and wildlife reserves not implemented	low	(ii) ensure stakeholder participation in the design and development of management plans
	(iii) weak private sector response to wood industry restructuring	moderate	(iii) incentive structure defined with private sector input and agreed at negotiations
	(iv) incentives for short-term gain outweigh those	low	(iv) negotiation of an acceptable compensation package for short-term benefits forgone and

	for protecting global biodiversity assets  (v) insufficient incentives to sustain conservation efforts		implementation of effective resource management and monitoring  (v) identify means to increase the sustainable flow of benefits or to maintain compensation at an adequate level
Project components to outputs	(i) inappropriate sectoral policy	low	(i) agree on acceptable policy before negotiations
	(ii) inadequate incentives for private sector and community participation	low	(ii) extensive participatory planning during preparation and analysis of lessons from similar programs in adjacent countries
Overall Risk Rating		low to moderate	
<b>I. Possible Controversial Aspects:</b> [Note: Flag possible negative factors or potential controversies, e.g., community/NGO/political opposition, and indicate how to monitor and manage them.] none expected			

**Block 4: Conditionality Framework**

17. [Identify the critical policy and institutional reforms sought, and where appropriate, the likely areas of conditionality.]	[ ] To be defined
<p>Major policy and institutional reforms are already underway. Project conditionality would seek to minimize risks and would address: (i) restructuring of the forest management and revenue collection agencies within the sector; (ii) assurances of gazettement under an appropriate management regime of high priority areas identified for biodiversity conservation; and, (iii) adoption of an appropriate incentive structure for mobilizing private investment and community participation in forest plantations, protection of biodiversity, management of wildlife resources and savannah woodland management.</p>	

**Block 5: Checklist of Bank Policies**

18. This project involves (check applicable items):			
[ ]	Indigenous peoples	[ ]	Riparian water rights
[ ]	Cultural property	[ ]	Financial management
[ ]	Significant environmental impacts	[ ]	Financing of recurrent costs
[x]	Natural habitats	[ ]	Local cost sharing
[ ]	Gender issues	[ ]	Cost-sharing above country three-year average
[ ]	Involuntary resettlement	[ ]	Retroactive financing above normal limit
[x]	Significant consultation	[ ]	Disputed territory
[x]	Significant participation	[x]	Forestry
<p><u>Donor Coordination.</u> There are six major donor organizations active in the forestry and wildlife sectors in Ghana and five others that have shown an interest in financing one or more programs in the sector. One of the main risks, at present, is that donor projects are conceived to help the government implement second- or third-best solutions to problems that are caused by poor policies and that could be solved successfully through private sector investment, given a better enabling</p>			

environment. For instance, the lack of private sector interest in timber plantation development, the continuing waste of wood in the forests and the mills, and the use of tree species that fetch high prices on the international market for low-value domestic end uses are all caused to a large extent by pervasive underpricing of timber resources. But instead of correcting the policy failures that keep stumpage fees low, various project proposals aim to use donor or government funds to implement piecemeal solutions, viz. to provide the private sector with special incentives to engage in plantation development, reduce wood waste and process more lesser-used species. This situation will require significant investment of time and resources in donor coordination during the preparation process by both the government and the Bank. Fortunately, the Ministry of Lands and Forestry has shown increasing resolve to address the outstanding policy and institutional reform issues and to coordinate the policy dimension of donor efforts.

WD and RFD Institutional Capacity. Despite support received under the FRMP, the WD remains a weak institution which has difficulty attracting and retaining qualified staff. The project will have to give special attention to this problem. Rural forestry activities within the savannah woodland zone are perceived by many staff in the FD as being less interesting or professionally rewarding than industrial timber management in the high forest zone, and savannah stations are generally considered hardship posts. The restructuring of forestry extension operations under the ODA financed initiative is expected to address this problem.

Local community involvement in park and reserve management. Local communities may at first be reluctant to participate in management of protected areas and savannah woodland reserves given the, past history of sometimes adversarial relationships with WD and Rural Forestry Division personnel. There are, however, encouraging precedents from adjacent sahelian nations and other parts of the continent. Mechanisms to involve local communities in park management and wildlife resource management have worked well in Eastern and Southern Africa, where initial conditions were similarly unfavorable. Participatory management of savannah forest reserves has met with promising initial success in neighboring Burkina Faso and Niger. In Ghana, there is long-standing local involvement in management and utilization of forest and wildlife resources (e.g. woodfuel, livestock browse, bushmeat, honey, shea butter, medicinal plants, etc.) and this could potentially provide the basis for more formal participation of local people's organizations in the management of reserves and protected areas. Both the WD and the RFD have piloted participatory management approaches, which should provide insights into how best to involve local communities in planning, management and revenue sharing. In particular, the successful WD approach of working with a strong local NGO with good outreach capacity developed under the GEF-financed Coastal Wetlands Management Project, provides a working model for community-based activities to be undertaken in this project.

Private sector interest and capacity for investment in reserves and protected areas. Until now, protected area and reserve management has been the sole responsibility of Government. With the exception of a few isolated cases (e.g. tourism development at Kakum NP), the private sector has not shown much interest in protected area management. Apart from the question of interest, there is also uncertainty about private sector capacity to develop appropriate revenue generating activities, and what might be required to help build such capacity. To reduce the risk of promoting non-viable activities the project would seek partnerships with international NGOs with proven success in the field, and any major investments would be reviewed against the development Master Plan established by the Ministry of Tourism.

**Block 6: Task Team/Review Arrangements/Management Decisions**

<b>20. Composition of Task Team</b> (see Annex 3)
TTL: Epworth (AFTA3). Members: Schreiber, Mensah (AFTA3), Bojo, (AFTE1), Douglas (AGRAF), Campbell, Creighton (consultants)
<b>21. Review Arrangements and Schedule</b> (see Annex 3)
Quality Control: Ms. Agi Kiss (AFTE1); Dr. John Robinson (GEF-STAP Reviewer). Peer Reviewers: Willem Floor (IENPD); Julia Falconer (SA2AW), Augusta Molnar (LA2NR)

<b>22. Management Decisions</b>		
<u>Issue</u>	<u>Action/Decision</u>	<u>Responsibility</u>
(i) Mounting the pre-appraisal mission	(i) The project and key issues have been sufficiently identified for a mission to be authorized	i) TTL to organize the mission
(ii) Clear appraisal mission	(ii) Hold review at CD level in accordance with Africa Regional Guidelines	(ii) CD
(iii) Determine the size and cofinancing plan for the savanna woodlands and high forest management components	(iii) The mission team should agree with the Borrower on the scope of the savannah woodlands and high forest management components and the level of Bank financing for these in the context of financing being sought from other donors and financiers	(iii) TTL
(iv) Determine the incremental costs of biodiversity conservation that would be eligible for GEF financing	(iv) The mission team should identify and try to agree with the Borrower on the incremental costs and activities to be financed by GEF under the biodiversity conservation component	(iv) TTL
Cost to Date: (US\$127,000)		
GO <input type="checkbox"/> NO GO <input type="checkbox"/> Further Review [Expected Date]		

[signature]  
Task Manager:

[signature]  
Country Manager:

**GHANA  
FOREST AND WILDLIFE RESOURCE MANAGEMENT PROJECT**

**Annex 1: Project Design Summary**

<b>Narrative Summary</b>	<b>Performance Indicators</b>	<b>Means of Verification</b>	<b>Critical Assumptions</b>
<p><b>CAS Objectives</b></p> <p>Environmentally sustainable economic development and rural poverty reduction</p>	<p><b>1.</b> Degradation of forest and woodlands reversed</p> <p><b>2.</b> Resource-based economic growth</p>	<p><b>1.1</b> Annual statistics on wood harvest and plantation establishment</p> <p><b>2.1</b> Revenues from forest and wildlife resources realized by local stakeholders</p>	<p>(CAS Objective to Bank Mission)</p> <p>Improved collaborative management and surveillance of forest lands will reduce degradation and increase revenues paid to local communities</p>
<p><b>Project Development and Global Objectives</b></p> <p>Improved public sector capacity to manage and monitor forest and wildlife resources</p> <p>Increased efficiency of the wood processing industry and private sector participation in forest resource management, plantation development and wildlife management</p> <p>Increased ecological security of globally threatened biological resources, in particular, tropical moist forest ecosystems</p>	<p><b>1.</b> Implementation of management plans for forest and wildlife reserves</p> <p><b>2.</b> Streamlined structure for sector surveillance and revenue collection</p> <p><b>3.</b> Increased private investment in upgrading processing facilities</p> <p><b>4.</b> Increased private sector involvement in tree planting and establishing forest plantations</p> <p><b>5.</b> Stability of threatened species populations and integrity of fragile habitats and ecosystems</p>	<p><b>1.1</b> Annual performance reviews</p> <p><b>2.1</b> Increased revenue collection from concession and stumpage fees</p> <p><b>3.1</b> Industry audits.</p> <p><b>4.1</b> Hectares of plantations established and concessions awarded</p> <p><b>5.1</b> Independent monitoring of biodiversity indicators</p>	<p>Development Objectives to CAS Objective)</p> <p><b>1.</b> Improved management will increase sustainable revenues from forest and wildlife resources.</p> <p><b>2.</b> Economic pricing of resources coupled with increased security of resource access will stimulate private investment in more efficient processing and enhance economic growth in the sector.</p> <p><b>3.</b> Enhanced security for vulnerable biodiversity will preserve future development options.</p>

Narrative Summary	Performance Indicators	Means of Verification	Critical Assumptions
<p><b>Project Outputs</b></p> <p><b>1.</b> Reorganization of public sector forest management institutions and regulatory authorities.</p> <p><b>2.</b> Modernized system for tracking, recording and monitoring stumpage fee collection</p> <p><b>3.</b> Management plans implemented for forest and wildlife reserves and special biological protection areas</p> <p><b>4.</b> Community-based wildlife management</p> <p><b>5.</b> More efficient timber milling and increased local value-added processing</p>	<p><b>1.1</b> Formation of Forest Service and associated streamlining of public sector capacity for forest management and revenue collection.</p> <p><b>1.2</b> Increased percentage capture of resource rents and stumpage fees.</p> <p><b>2.1</b> Installation of technology for tracking timber through felling, transport and milling process.</p> <p><b>3.1</b> Inventories and surveys completed.</p> <p><b>3.2</b> Fire control measures and prescriptive burning program established.</p> <p><b>3.3</b> Infrastructure improvements completed.</p> <p><b>3.4</b> Management capacity of Wildlife Department strengthened</p> <p><b>4.1</b> Management plans developed with communities and implemented.</p> <p><b>5.1</b> Installation of new equipment and reduced wastage and log consumption</p>	<p><b>1.1.1</b> Legislative instrument approved and necessary regulations promulgated</p> <p><b>1.2.1</b> Annual statistics on concession rent and fee collection, and system audit</p> <p><b>2.1.1</b> Site inspections and system performance review</p> <p><b>3.1.1</b> Review of inventory and survey reports</p> <p><b>3.2.1</b> Action plan implemented, training accomplished and equipment in place</p> <p><b>3.3.1</b> Site inspections and Project's annual review</p> <p><b>3.4.1</b> Training program review and annual performance evaluations</p> <p><b>4.1.1</b> Site visits, participant interviews</p> <p><b>5.1.1</b> Industry audits and annual statistics on log movements and fee collections.</p>	<p>(Outputs to Development Objectives)</p> <p><b>1.</b> Industry cooperation and political will are sufficiently strong to effect changes</p> <p><b>2.</b> Local populations are sufficiently involved in preparation of plans and aware of potential benefits to adopt plans.</p> <p><b>3.</b> The potential local economic benefits are sufficient for communities to participate.</p> <p><b>4.</b> Incentives are sufficient to affect change and adequate financing is available.</p>

Narrative Summary	Performance Indicators	Means of Verification	Critical Assumptions
<p><b>6.</b> Private sector forest and woodland plantations</p> <p><b>7.</b> Enhanced protection of globally significant biodiversity</p>	<p><b>6.1</b> Hectares of forest reserves replanted</p> <p><b>6.2</b> Hectares of woodlands under community management</p> <p><b>7.1</b> Completion of forest survey to identify and document candidate sites for protection of flora and fauna.</p> <p><b>7.2.</b> Establishment of Special Biological Protection Areas and implementation of fine-grained protection measures</p> <p><b>7.3</b> Implementation of biological monitoring program.</p>	<p><b>6.1.1</b> Review of lease contracts and statistics, site visits</p> <p><b>6.2.1</b> Site visits, participant interviews, annual statistics</p> <p><b>7.1.1</b> Independent review of criteria and documentation for site selection .</p> <p><b>7.2.1</b> Registration and gazettelement records and site visits</p> <p><b>7.3.1</b> Review of program records and site visits</p>	<p><b>5.</b> Fiscal incentives are sufficient to stimulate private sector participation</p> <p><b>6.</b> Fiscal incentives are sufficient and technical support is adequate to enable communities to participate.</p> <p><b>7.</b> Public will is there, costs and benefits are well understood and financial incentives are adequate for stakeholders to adopt a more restrictive management regime for priority reserves.</p>
<p><b>Project Components</b> [See Annex 2 for a detailed description]</p> <p><b>1.1</b> Restructuring of the Forestry Department into a semi-autonomous self-financing Forest Service</p> <p><b>1.2</b> Redefinition and restructuring of the roles of the Forest Commission, Forest Products Inspection Bureau and the Timber Export Development Board</p>	<p><b>1.1.1</b> Legal and administrative establishment of the Forest Service.</p> <p><b>1.2.1</b> Consolidation of revenue collection within the Forest Service.</p> <p><b>1.2.2</b> Increased percentage of fees collected and more transparent accounting and reporting procedures in place.</p>	<p><b>1.1.1.1</b> Project's annual review (MLF).</p> <p><b>1.2.1.1</b> Project's annual review (MLF)</p> <p><b>1.2.2.1</b> Rent and fee collection records, annual statistics. (MLF)</p>	<p>(Components to Outputs)</p> <p><b>1.</b> Consensus has been reached at necessary levels of Government for effecting structural changes and implementing technical improvements.</p>

Narrative Summary	Performance Indicators	Means of Verification	Critical Assumptions
<p><b>2.1</b> Implement collaborative management plans for forest and wildlife reserves that incorporate private sector involvement in reserve management activities and interim control measures in non-reserve areas.</p>	<p><b>2.1.1.</b> Plans adopted, endorsed by district assemblies and traditional authorities, and under implementation.</p> <p><b>2.1.2.</b> Private sector and community lease arrangements implemented for forest plantation and woodland management.</p>	<p><b>2.1.1.1</b> Minutes of actions by district assemblies and traditional councils, annual Project reports (MLF)</p> <p><b>2.1.2.1.</b> Rental and lease records, site inspections, annual Project reports (MLF).</p>	<p><b>2.</b> Public involvement in development of plans has been adequate and incentives for private sector participation are sufficient and clearly understood by prospective beneficiaries.</p>
<p><b>2.2</b> Support national strategy for implementing community-based woodland management within the savanna zone.</p>	<p><b>2.2.1.</b> Technical support capability developed to assist communities with woodland management.</p> <p><b>2.2.2</b> Community-based woodland management initiated in 25% of existing forest reserves within the savanna zone.</p>	<p><b>2.2.1.1</b> Training and mobilization carried out, annual Project report and site visits (MLF).</p> <p><b>2.2.2.2</b> Management plans prepared, adopted and under implementation. annual Project and site visits</p>	<p><b>3.</b> There is an adequate technical knowledge base and communities recognize the need and/or market for increased wood resource production.</p>
<p><b>2.3</b> Implement the <i>National Forest Protection Strategy</i> by establishing a system of Special Biological Protection Areas for conservation of forest biodiversity.</p>	<p><b>2.3.1</b> Establishment of Special Biological Protection Areas including a minimum total of 391,845 hectares within the evergreen forest and southern dry forest zones.</p> <p><b>2.3.2</b> Undertake faunal surveys and applied research to determine the size and location of reserves, and their management requirements for protection of faunal diversity in the high forest zone.</p>	<p><b>2.3.1.1</b> Number and area of reserves for which SPBA management plans are implemented, site inspections and annual Project reports (MLF).</p> <p><b>2.3.2.1</b> Survey reports and synthesis, results of public discussion of findings and adoption of technical recommendations (MLF, MEST)</p>	

Narrative Summary	Performance Indicators	Means of Verification	Critical Assumptions
<p><b>3.1</b> Introduce program of reforms and incentives to stimulate improved efficiency within the wood processing industry.</p>	<p><b>3.1.1.</b> Incentive program in place to support transition to improved industrial efficiency.</p> <p><b>3.1.2</b> Private sector investment mobilized to increase processing efficiency in at least 25% of industrial operations.</p>	<p><b>3.1.1.1</b> Statistics on application and subscription rate to incentive program by private sector operators (MLF)</p> <p><b>3.1.2.1</b> Annual project report and statistics on investment rates (MLF)</p>	<p><b>4.</b> Fiscal incentives are adequate and sufficiently understood and program is well enough administered to encourage adequate participation rate.</p>
<p><b>4.1</b> Replant degraded areas of reserves and establish associated outgrower tree farm schemes</p>	<p><b>4.1.1</b> Hectares replanted and rural landholder participation</p>	<p><b>4.1.1.1</b> Annual report and statistics, participant interviews (MLF)</p>	<p><b>5.</b> Economic incentives are sufficient and tree-tenure is secure enough to warrant participation by rural cultivators.</p>

