

PD-ABD-140



**CENTRAL AFRICAN REGIONAL PROGRAM  
FOR THE ENVIRONMENT  
(CARPE)**

**PROJECT PAPER**

**698-0548**

**Bureau for Africa, SD/PSGE**

**U.S. Agency for International Development**

**\* September 29, 1995 \***



U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT  
AFRICA BUREAU  
Office of Sustainable Development (AFR/SD)  
Washington, D.C. 20523-0089

***ACTION MEMORANDUM FOR THE ASSISTANT ADMINISTRATOR FOR AFRICA***

**DATE:** August 29, 1995

**FROM:** Jerome Wolgin, Director, AFR/SD

**SUBJECT:** Project Paper Authorization: Africa Regional - Central African Regional Program for the Environment (CARPE) - 698-0548

**PROBLEM:** Your approval is requested for an 1) Authorization of the Central African Regional Program for the Environment (CARPE) and 2) a FY 95 grant of \$4,005,000 from the Development Fund for Africa for activities including non-competitive cooperative agreement awards to the World Wildlife Fund, the Wildlife Conservation Society and the PVO/NGO NRMS consortium. In addition, 3) by signing the Project Data Sheet, you approve the CARPE Project Paper. This will be a five year project, with a life-of-project funding level of \$14,005,000. This grant, which is described in the attached Project Paper, is a regional initiative which will address the environmental issues of global climate change and the conservation of biological diversity in the tropical lowland forest of the Congo Basin.

**BACKGROUND:** It is within the interest of the United States Government (USG) to support rational and sustainable development in central Africa, in a manner which also addresses the larger global and regional concerns of climate change and biodiversity conservation. The Congo Basin is a watershed of local, regional, and global importance.

CARPE is a major element of USAID's Global Climate Change Strategy and has been identified as one of the U.S. Government's proposed Global Climate Change initiatives under the United Nations Framework Convention on Climate Change. Tropical forests, such as that in the Congo Basin, serve as important reservoirs of carbon and, if destroyed, will release CO<sub>2</sub> into the atmosphere which will contribute to global climate change. While the long-term global impact of tropical deforestation on the world's climate could be very important, the impact of deforestation on the Congo Basin itself could be both more immediate and more severe. Since between 75-95 percent of the Congo Basin's rainfall is from recycled water generated by evapotranspiration within the region, significant deforestation will likely result in changes in regional rainfall patterns and increased variability of that rainfall. This would have a devastating impact on the overall ecosystem and on the economies of the countries in the region.

The Congo Basin is also critical in terms of biodiversity conservation. It is one of the major centers of endemism in the world and the area from which much of Africa's biological diversity is believed to have originated. The tropical forests in the region remain extremely rich in

species. The region supports a range of important flora and fauna, many of which have, or may have, significant economic value. In particular, the Congo Basin contains most of the world's remaining populations of lowland gorillas, chimpanzees, bonobos (pygmy chimpanzees), and forest elephants. The loss of this biodiversity would impoverish the natural world for future generations and eliminate potentially important sources of raw materials that could be critical for advances in medicine, agriculture, industry, and other fields.

### ***DISCUSSION:***

***Goal and Purpose:*** The Goal of CARPE is to reduce the rate of deforestation of the tropical forests in the Congo Basin, in order to conserve the biological diversity contained in those forests and, in the long-run, to avert potentially negative changes in the global and regional climate. Clearly, given the funding levels available, this project will not significantly affect the rate of deforestation within the Congo Basin in the near or mid-term, particularly given the vast social and economic pressures underlying this phenomenon. However, the project should be able to lay the groundwork for a much larger effort in the future aimed at conserving this ecosystem -- an effort that will involve host governments, international donors, and non-governmental organizations (NGOs). It is likely that efforts to save this forest will increase over time, as the impacts of this deforestation become more pronounced, as the nations in the Congo Basin become sensitized to the importance of these tropical resources to their own economic well-being and to the welfare of the world, and as the political systems in the countries of the region stabilize and solidify. To prepare the groundwork for such a larger-scale effort, the project's Purpose is to identify and begin to establish the conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin, in a manner which addresses local, national, regional and international concerns.

The focus of the project will be on the establishment of eight Purpose-level conditions:

- Improved understanding of the overall ecology and biodiversity of the Congo Basin biosphere, the threats to its ecosystems, and the potential impact of the degradation of the region's environment;
- Development of comprehensive long-term strategies for addressing the global climate change and biodiversity issues affecting the Congo Basin ecosystem;
- The development, within the countries of the Congo Basin, of a cadre of trained and committed environmentally-conscious African development specialists (within both the government and non-governmental sectors) that can serve as a nucleus for the sensitization of national policy makers and the public to the importance of conserving the natural resource base of the Congo Basin;
- Creation of a policy environment conducive to land use and production systems that conserve the tropical forests and the biodiversity that they contain;
- Identification and testing of field approaches aimed at slowing deforestation in the region and identifying key conditions that influence the effectiveness of these approaches;

- Creation of partnerships among environmental and development-oriented NGOs, researchers, governments, and the international community, aimed at collaboratively addressing Global Climate Change, biodiversity, and deforestation issues affecting the Congo Basin.
- Indigenous NGOs strengthened and playing an advocacy role for the environment. Environmental PVOs and NGOs playing a constructive role in host government policy analysis and formulation.
- Establishment of networks of researchers, local and international PVOs and NGOs, policy makers and technicians interested in conserving the Congo Basin's natural resources.

***Implementation:***

The tropical forest of the Congo Basin covers portions of six African countries: Cameroon, the Central African Republic, the Republic of the Congo, Gabon, Zaire, and Equatorial Guinea. Since Cameroon and Zaire are officially USAID "closeout countries", CARPE will not provide funding to directly support field activities in those two countries. CARPE will, however, encourage other donors to undertake activities in Cameroon and Zaire which complement CARPE's efforts and will collaborate with those activities to the extent permitted under USAID's closeout guidance. CARPE will, moreover, involve representatives from both the governmental and non-governmental sectors of Cameroon and Zaire in regional activities, such as conferences and workshops, subject to any prohibitions to assistance which may apply. Finally, the level of effort in Equatorial Guinea under CARPE is expected to be minimal, at least in the initial years, due to the absence of established non-governmental organizations in the environmental sector in that country.

USAID does not currently have a bilateral presence in any of these countries, although some activities are currently underway in the region through the Small Country Program and for humanitarian assistance. However, USAID's Strategies for Sustainable Development provides that "in countries where USAID's presence is limited, but where aid to non-governmental sectors may ... influence a problem with regional or global implications, USAID may operate from a central or regional base, may focus on policy and institutional changes in the public sector, or may support work of U.S. or indigenous NGOs or institutions of higher learning." CARPE clearly responds to this mandate.

The design of CARPE is also fully consistent with the spirit of the re-engineering of USAID. The absence of bilateral missions will make CARPE unique, even for a regional project, and has necessitated the design of an innovative and flexible implementation structure. In particular, all field activities will be carried out by U.S. Private Voluntary Organizations (PVOs) and non-governmental organizations (NGOs) under cooperative agreements or grants. While keeping in mind the need to ensure that the activities undertaken under these cooperative agreements are consistent with, and contribute to the achievement of, CARPE's objectives, USAID will give as much latitude as possible to the cooperators for project implementation. The principle

collaborators for this project have substantial experience in the Congo Basin, and we believe that they can be relied upon to develop activities that meet the overall objectives of the project. A management/advisory committee will be organized to facilitate coordination. USAID's management focus will be on fostering greater integration of their discrete activities.

Donor collaboration, in view of the complexity of the region and the diversity of donors, governmental and non-governmental organizations active in the region is deemed important for project success. During project design CARPE was discussed with representatives from Germany, France, Belgium, European Union, Netherlands, and Britain. State Department through Embassies have also briefed donors on USAID plans. CARPE was introduced to the NGO community in Europe in late May. Two joint programming missions have been supported; one on remote sensing and resource inventory and another on management of the proposed Bangasou Special Reserve in the Central African Republic. A donor coordination workshop is planned for January in Libreville.

Support for these field activities will be provided through existing projects managed by USAID's Bureau for Global Programs, Research, and Technical Support, Center for the Environment. The potential collaborators have been heavily involved in the design of the project, and the field level activities will be finalized with our PVO and NGO partners during the initial stages of implementation.

CARPE will fund two new cooperative agreements, one with the World Wildlife Fund (WWF) and one with the Wildlife Conservation Society (WCS), to support and expand their programs and activities in the Congo Basin. WWF and WCS are the only U.S. conservation organizations with significant programs and active projects in the Congo Basin region. The cooperative agreements with these PVOs will serve as the nucleus for a broad range of other CARPE-funded activities.

CARPE will also fund a grants program that will support a wide range of field and research activities throughout the Congo Basin region. The grants program will be managed through the Biodiversity Support Program (BSP), a component of the Global Bureau's Conservation of Biological Diversity Project. BSP is implemented by a consortium of PVOs (World Wildlife Fund, the Nature Conservancy and the World Resources Institute).

Funding under CARPE will also be provided to the PVO/NGO NRMS Consortium (comprised of three PVOs, World Learning, CARE and WWF) which has extensive experience in the region in strengthening indigenous environmental NGOs. CARPE will support the Network for the Environment and Sustainable Development in Africa (NESDA), an African NGO which can play an important role in policy dialogue on environmental issues in the region and the African Forest Action Network, an African NGO consortium dedicated to the conservation and sustainable use of forest resources and benefits. CARPE will also include an analytical program aimed at answering some of the key questions facing policy decision makers in the region.

As this project will be implemented with DFA funds, the Africa Bureau will be responsible for its management. The USDH Project Officer will be located in the Africa Bureau's Office of

Sustainable Development/Productive Sector Growth and Environment (AFR/SD/PSGE). The CARPE Project Officer will be responsible for the strategic management of the project and will assure that project resources are used according to project objectives. The Project Officer will supervise a RSSA project manager, who will be responsible for day-to-day oversight of the project. The management of CARPE envisions at least one field position, funded through a cooperative agreement with the Biodiversity Support Program. Grants management will be exercised by the USAID/W Office of Procurement (M/OP/A/AOT). Financial management for CARPE will be provided by the Office of Financial Management (M/FM). The attached Project Paper conforms to Agency and Africa Bureau interim guidelines for project development.

The Project Identification Document was approved July 28, 1994. At the Project Paper Issues meeting, held on January 25, 1995, consistency with Agency closeout guidance was questioned. In view of this and Agency budget projections, several modifications were made to the Project Paper and consultations were held with major stakeholders. At a Project Paper Technical Review held on July 26, 1995 no further issues were identified and recommendation was made to proceed with Project Authorization and obligation documents.

**JUSTIFICATION FOR NON-COMPETITION:** Project implementation will include the issuance of at least three Cooperative Agreements on a non-competitive basis (the World Wildlife Fund (U.S.), the Wildlife Conservation Society, and the PVO/NGO NRMS Project). These cooperative agreements will be implemented by the USAID Environment Center under the Conservation of Biological Diversity project (936-5554). WWF, WCS and PVO/NGO NRMS have predominant capability to implement natural resources management programs in the Congo Basin. This predominant capability rests upon: (1) their experience in the region; (2) their technical competence in Congo Basin environmental issues; (3) the scope and nature of their ongoing programs; and (4) their regional focus. Annex F of the Project Paper contains a detailed justification for non-competitive award of these cooperative agreements.

**CONDITIONS PRECEDENT:** There are no Conditions Precedent to fund disbursement.

**CONGRESSIONAL NOTIFICATION:** A Congressional Notification was submitted on September 15, 1995 and the 15 day waiting period expired without objection on September 29, 1995.

**RECOMMENDATION:** That you sign the attached Authorization and Project Data Sheet (face sheet) and thereby: (1) authorize the Central African Regional Program for the Environment (CARPE) 698-0548 with life of project funding of \$14,005,000 in DFA grant funds, and (2) authorize the allocation of \$4,005,000 in FY95 DFA funds to be obligated according to the procedures set out in the PP. In addition, 3) by signing the Project Data Sheet, you approve the CARPE Project Paper.

**ATTACHMENTS:**

Project Data Sheet  
Authorization  
Project Paper

CLEARANCES:

AFR/WA: LTaylor <u>LTaylor</u>	Date: <u>8/15/95</u>
AFR/DP: JGovan <u>JGovan</u>	Date: _____
GC/AFR: PJohnson <u>PJohnson</u>	Date: <u>1 Sept 95</u>
PPC/DAA/ENV: GPickett <u>GPickett</u>	Date: <u>9/7/95</u>
G/ENV: PCrawford <u>PCrawford</u>	Date: <u>8/15/95</u>
AFR/DAA: NFields <u>NFields</u>	Date: <u>9/25/95</u>
AFR/SD: AGetson <u>AGetson</u>	Date: <u>8/14/95</u>
AFR/SD/PSGE: CREintsma <u>CREintsma</u>	Date: <u>8/14/95</u>
AFR/SD/PSGE: JGaudet <u>JGaudet</u>	Date: <u>8/14/95</u>
AFR/SD/PSGE: PJones <u>PJones</u>	Date: <u>8/14/95</u>

C:\DOC\CARPE\PP\FINAL\ACTION.MEM Drafter: TResch 703 235 3786

## PROJECT AUTHORIZATION

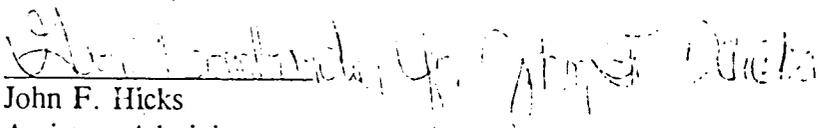
Name of Country/Entity: Africa Regional  
Name of Project: Central African Regional Program for the Environment  
(CARPE)  
Number of Project: 698-0548

Pursuant to Section 496 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Central African Regional Program for the Environment involving planned obligations of not to exceed Fourteen Million Five Thousand U.S. Dollars (\$14,005,000) in grant funds over a five year period from date of authorization, subject to the availability of funds in accordance with the USAID OYB allotment process, to help in financing foreign exchange and local currency costs for the project. The planned life of the project is six years from the date of the initial obligation.

The project as described in the Project Paper will identify and begin to establish the conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin, in a manner which addresses local, national, regional and international concerns. This in turn will contribute to reduce the rate of deforestation of the tropical forests in the Congo Basin, in order to conserve the biological diversity contained in those forests and, in the long-run, to avert potentially negative changes in the global and regional climate.

The obligating Agreements, which may be negotiated and executed, by the officer to whom such authority is delegated in accordance with USAID regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major Pre-conditions, together with such other terms and conditions as USAID may deem appropriate.

Source and origin of commodities; nationality of services. The nationality for suppliers of services, including ocean transportation services, and the source and origin of commodities financed under the project shall be as set forth in the updated DFA Procurement Guidance, dated February 1, 1993, as may be amended from time to time.

  
John F. Hicks  
Assistant Administrator  
Bureau for Africa

Date: 5/17/93

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AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

L. TRANSACTION CODE

**A** A - Add  
C - Change  
D - Delete

Amendment Number

DOCUMENT CODE

3

COUNTRY/ENTITY  
AFRICA REGIONAL

1. PROJECT NUMBER  
698-0548

BUREAU/OFFICE  
AFR/SD/PSGE

2. PROJECT TITLE (maximum 40 characters)  
CARPE - REGIONAL ENVIRONMENT

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)

MM DD YY  
09 30 00

7. ESTIMATED DATE OF OBLIGATION  
(Under "B." below, enter 1, 2, 3, or 4)

A. Initial FY 915

B. Quarter

C. Final FY 919

8. COSTS (\$000 OR EQUIVALENT \$1 = )

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	4,005	NA	4,005	14,005	NA	14,005
(Grant)	( )	( )	( )	( )	( )	( )
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S.						
1.						
2.						
Host Country						
Other Donor(s)						
<b>TOTALS</b>	<b>4,005</b>	<b>NA</b>	<b>4,005</b>	<b>14,005</b>	<b>NA</b>	<b>14,005</b>

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1)						4,005		14,005	
(2)									
(3)									
(4)									
<b>TOTALS</b>									

10. SECONDARY TECHNICAL CODES (maximum 8 codes of 3 positions each)

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code  
B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To identify and begin to establish the conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin in a manner which addresses local, national, regional and international concerns.

14. SCHEDULED EVALUATIONS

15. SOURCE/ORGAN OF GOODS AND SERVICES

Location MM YY MM YY Final MM YY  
01 39 7 01 69 9

000  941  Local  Other (Specify)

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of 1 page FF Amendment)

The Controller concurs with the methods of implementation and financing.

Signature  
Controller, AFR/DP/OEFM, Robert Leonard

17. APPROVED BY

Signature  
Title  
Date Signed MM DD YY

18. DATE DOCUMENT RECEIVED IN AID/W. OR FOR AID/W DOCUMENTS. DATE OF DISTRIBUTION

MM DD YY

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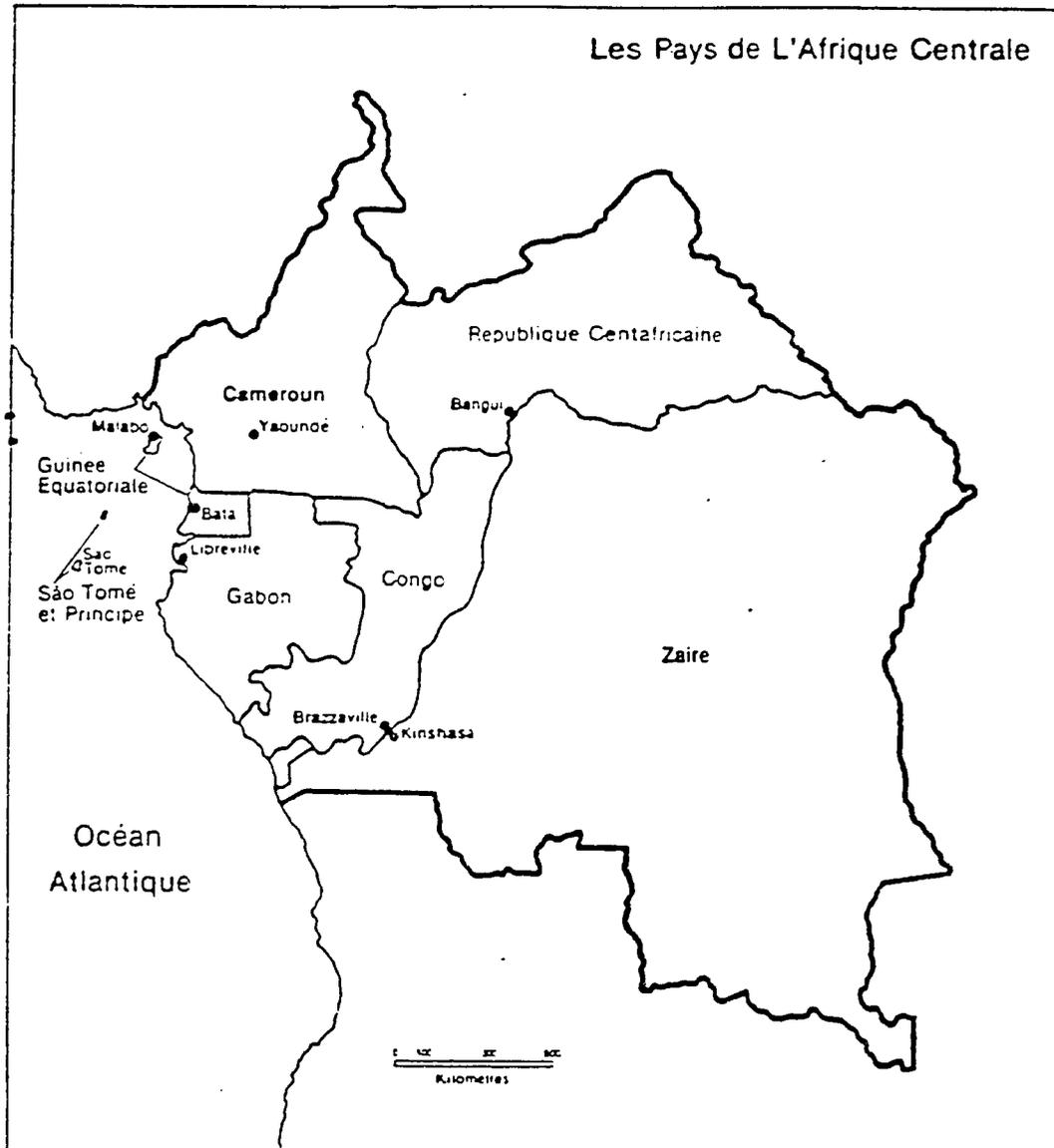
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**Annexes**

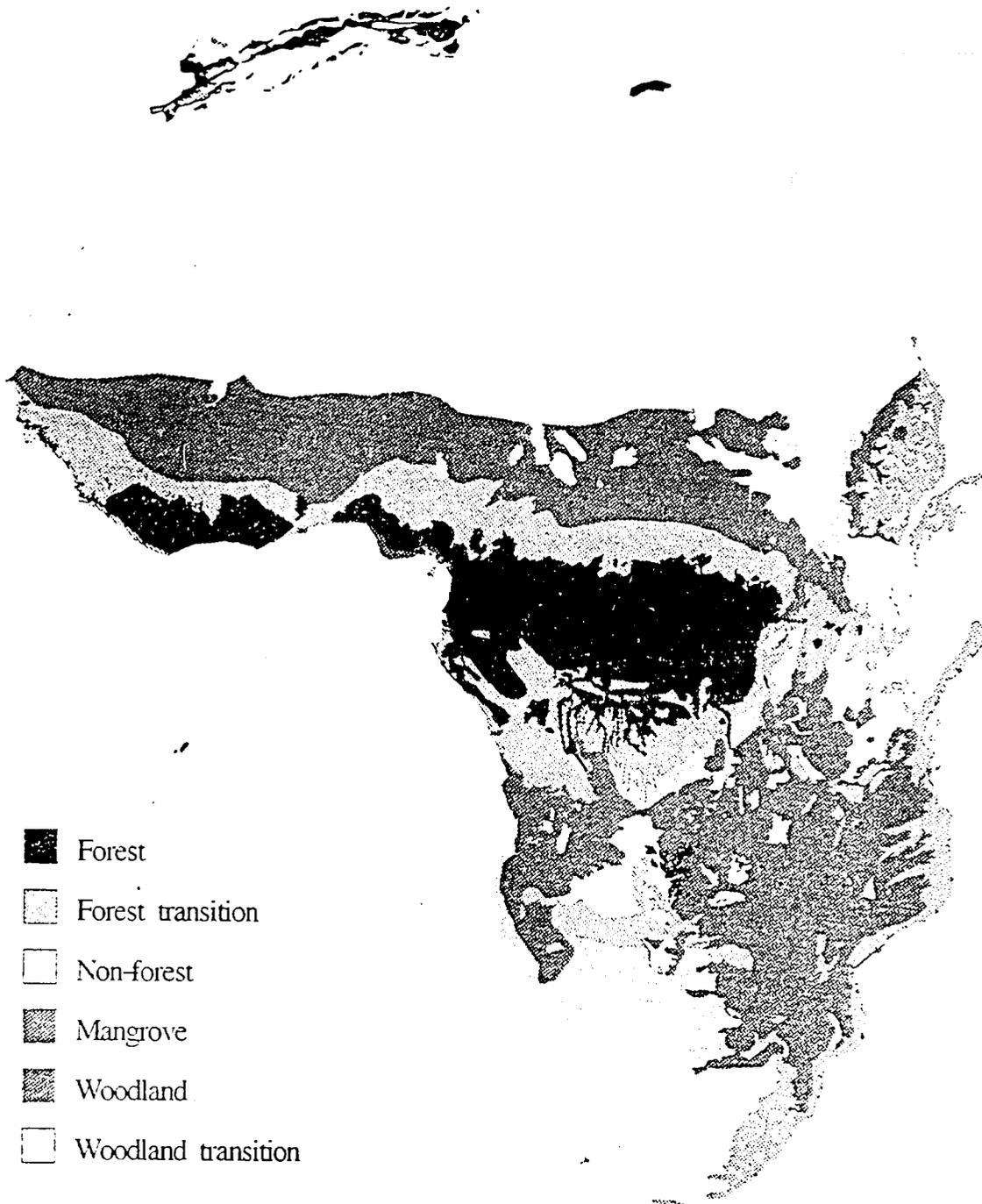
- Annex A: Logical Framework
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# POLITICAL MAP OF THE CONGO BASIN



# White/UNESCO Map of Africa Generalized Classes

VEGETATION MAP OF AFRICA



- Forest
- ▒ Forest transition
- Non-forest
- ▓ Mangrove
- ▒ Woodland
- Woodland transition

## LIST OF ACRONYMS

AFR	USAID Bureau for Africa
AFR/ARTS/FARA	Bureau for Africa's Office of Analysis, Research and Technical Support, Bureau for Food, Agriculture and Resource Analysis Division (now AFR/SD/PSGE)
AFR/SD/PSGE	USAID Bureau for Africa, Office of Sustainable Development, Productive Sector Growth and Environment Division (formerly AFR/ARTS/FARA)
ALO	AID Liaison Officer (of Department of State)
ATLAS	African Training for Leadership and Skills Project
AFR/WA	Africa Bureau, Office of Western Africa
BSP	Biodiversity Support Program
BEO	Bureau Environmental Officer
CA	Cooperative Agreement
CAGCC	Central Africa Global Climate Change Study
CAR	Central African Republic
CARPE	Central African Regional Program for the Environment (698-0548)
CBD	Conservation of Biological Diversity Project (936-5554)
CO <sub>2</sub>	carbon dioxide
CFCs	chloro-flouorocarbons
DA	development assistance (a USAID FAA fund category)
DANIDA	Danish International Development Agency
DFA	Development Fund for Africa
ECPR	Executive Committee Project Review
ECOFAC	Conservation des Ecosystemes Forestiers en Afrique Centrale (project of the European Union)
EU	European Union (formerly European Community)
EIL	Experiment in International Living (now World Learning, Inc.)
EIS	environmental information systems
EPM	Environmental Planning and Management Project (936-5517)
FAA	U.S. Foreign Assistance Act of 1961, as amended
FAO	Food and Agriculture Organization of the United Nations
FSN	foreign service national
FSP	Forestry Support Program (of USDA Forest Service)
FRM II	Forest Resources Management II Project (936-5556)
FY	fiscal year
G	USAID Bureau for Global Programs, Field Support, and Research
G/ENV/ENR	Center for Environment, Office of Environment and Natural Resources, of G Bureau
GC	USAID Office of General Counsel
GCC	global climate change
GEF	Global Environment Facility
GIS	geographic information systems

GTZ	Gesellschaft für Technische Zusammenarbeit (German technical assistance agency)
ICDP	integrated conservation and development project
ICRAF	International Centre for Research in Agro-Forestry
IITA	International Institute for Tropical Agriculture
ITTO	International Tropical Timber Organization
IUCN	World Conservation Union (formerly International Union for the Conservation of Nature)
LOP	life of project
M	USAID Bureau for Management
MDS	Multi-donor Secretariat
NAS	National Academy of Sciences
NASA/GSFC	National Aeronautics and Space Administration Goddard Space Flight Center
NESDA	Network for the Environment and Sustainable Development in Africa
NGO	non-governmental organization
NRICG	Natural Resources Information Consultative Group (of WRI)
NRMS	Natural Resources Management Support Project (698-0467)
NRM	natural resources management
ODA	Overseas Development Administration (British foreign assistance agency)
ONADEF	Office Nationale de Developpement des Forets (Cameroon)
OYB	operating year budget
PACD	Project activity completion date
PARTS	Policy, Analysis, Research and Technical Support Project (698-0478)
PASA	Participating Agency Service Agreement
PNRM	Plan for Supporting Natural Resources Management in Sub-Saharan Africa
PCG	Policy Consultative Group on Natural Resources Management (of WRI)
PIO/T	Project Implementation Order/Technical Services
PPC	USAID Bureau for Policy and Program Coordination
PSC	personal services contract
PVO	private voluntary organization
REDSO/WCA	Regional Economic Development Services Office for West and Central Africa
RSSA	Resources Support Service Agreement
SPA	Small Project Assistance (Peace Corps)
TA	technical assistance
UNCED	United Nations Conference on Environment and Development
USAID	United States Agency for International Development
USDA/FAS/ICD	International Cooperation and Development Division of the U.S. Department of Agriculture, Foreign Agricultural Service
USDH	U.S. direct hire (employee)
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

USG	United States Government
USGS	United States Geological Survey
UMD	University of Maryland at College Park
WCS	NYZS The Wildlife Conservation Society
WRI	World Resources Institute
WWF	World Wildlife Fund (U.S.) or Worldwide Fund for Nature (WWF International)

## EXECUTIVE SUMMARY

The Central African Regional Program for the Environment (CARPE) - (698-0548) is an Africa Bureau regional initiative funded under the Development Fund for Africa. This will be a five year project, with a life-of-project funding level of \$14 million. The proposed FY95 obligation will be \$4,005,000 million. This project will address the global environmental issues of biodiversity conservation and global climate change, through conservation efforts in the tropical lowland forest of the Congo Basin.

The Congo Basin contains approximately two million square kilometers, the largest area of contiguous moist tropical forest in Africa, and the second largest such expanse in the world. This forest covers parts of Cameroon, the Central African Republic, and Zaire, and most of the Congo, Equatorial Guinea, and Gabon. These six countries currently have a population of some 60 million people and, given present rates of population growth, this population is expected to increase to 150 million people by the year 2025. In the absence of more sustainable resource use practices, this rapid population growth will lead to increasing deforestation and biodiversity loss. The loss of tropical forest in the Congo Basin is significant, amounting to 114,000 square kilometers cleared between 1980 and 1990, an area larger than Belgium, Denmark, and the Netherlands combined.

**RATIONALE:** It is within the self-interest of the United States Government (USG) to support the conservation of the tropical forests of the Congo Basin, which represent a watershed of global, as well as regional importance.

CARPE is a major element of USAID's Global Climate Change Strategy and has been identified as one of the U.S. Government's proposed Global Climate Change initiatives under the United Nations Framework Convention on Climate Change. Tropical forests, such as that in the Congo Basin, serve as important reservoirs of carbon and, as they are destroyed, release CO<sub>2</sub> into the atmosphere which contributes to global climate change.

Moreover, while the long-term global impact of tropical deforestation on the world's climate could be very important, the impact of deforestation on the Congo Basin itself could be both more immediate and more severe. Since between 75-95 percent of the Congo Basin's rainfall is from water recycled through evapotranspiration within the region, continued deforestation threatens to lead to significant changes in the distribution and variability of regional rainfall patterns. This would have a devastating effect on the overall ecosystem and on the economies of the countries in the region.

The Congo Basin is also vital to biodiversity conservation. It is one of the major centers of endemism in the world and the area from which much of Africa's biological diversity is believed to have originated. The region supports a range of important flora and fauna, many of which have, or may have, significant economic value. In particular, the Congo Basin contains most of the world's remaining populations of lowland gorillas, chimpanzees, bonobos (pygmy chimpanzees), and forest elephants. The loss of this flora and fauna would impoverish

the natural world for future generations and eliminate potentially important sources of raw materials that could be critical for advances in medicine, agriculture, industry, and other fields. The U.S. House of Representatives' Committee on Appropriations has recently called on USAID to "*provide as high a level of funding as possible*" for efforts in "*the conservation of biodiversity and protection of tropical forests*" "*even if this entails work in close-out or non-presence countries...*" (Committee on Appropriations, Foreign Operations Bill, June 1995)

***Project Goal and Purpose:*** The Goal of CARPE is to reduce the rate of deforestation of the tropical forests in the Congo Basin, in order to conserve the biological diversity contained in those forests and, in the long-run, to avert potentially negative changes in the global and regional climate. Clearly, given the funding levels available, this project will not have a significant effect on the overall deforestation of the Congo Basin in the near or mid-term, particularly given the vast social and economic pressures underlying this phenomenon. However, the project should be able to lay the groundwork for the much larger future effort that will be required to conserve this ecosystem -- an effort that will involve host governments, international donors, and non-governmental agencies (NGOs).

It is likely that mankind's efforts to save the Congo Basin's tropical forest will increase over time, as the impacts of this deforestation become more pronounced, as the nations in the Congo Basin become sensitized to the importance of these tropical resources to their own economic well-being, and as their political systems stabilize and develop. To prepare the groundwork for such a larger-scale effort, CARPE's Purpose is to identify and begin to establish the conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin, in a manner which addresses local, national, regional and international concerns.

The focus of the project will, therefore, be on the establishment of eight Purpose-level conditions:

- Improved understanding of the overall ecology and biodiversity of the Congo Basin biosphere, the threats to its ecosystems, and the potential impact of the degradation of the region's environment;
- Development of comprehensive long-term strategies for addressing the global climate change and biodiversity issues affecting the Congo Basin ecosystem;
- The development, within the countries of the Congo Basin, of a cadre of trained and committed environmentally-conscious African development specialists (within both the government and non-governmental sectors) that can serve as a nucleus for the sensitization of national policy makers and the public to the importance of conserving the natural resource base of the Congo Basin;
- Creation of a policy environment conducive to land use and production systems that conserve the tropical forests and the biodiversity that they contain;

- Identification and testing of field approaches aimed at slowing deforestation in the region and identifying key conditions that influence the effectiveness of these approaches;
- Creation of partnerships among environmental and development-oriented NGOs, researchers, governments, and the international community, aimed at collaboratively addressing Global Climate Change, biodiversity, and deforestation issues affecting the Congo Basin.
- Indigenous NGOs strengthened and playing an advocacy role for the environment. Environmental PVOs and NGOs playing a constructive role in host government policy analysis and formulation.
- Establishment of networks of researchers, local and international PVO and NGOs, policy makers and technicians interested in conserving the Congo Basin's natural resources.

***Proposed Implementation Strategy:***

CARPE is a regional project, and therefore must deal with the conservation of the Congo Basin's tropical forest from a regional perspective and in collaboration with the other USG agencies and the donor community. This regional focus is also dictated by the fact that USAID does not have a bilateral presence in any of the six countries encompassing the Congo Basin. The large bilateral programs in Cameroon and Zaire have recently closed, while USAID has maintained limited programs in the Congo, CAR, Equatorial Guinea and Gabon under the Small Country Program Strategy.

As Cameroon and Zaire are USAID "closeout countries", CARPE will not provide funding to directly support field activities in those two countries. CARPE will, however, encourage other donors to undertake activities in Cameroon and Zaire which complement CARPE's efforts and will collaborate with those activities to the extent permitted under USAID's closeout guidance. CARPE will, moreover, involve representatives from both the governmental and non-governmental sectors of Cameroon and Zaire in regional activities, such as conferences and workshops. Finally, the level of effort in Equatorial Guinea under CARPE is expected to be minimal, at least in the initial years, due to the absence of established non-governmental organizations in the environmental sector in that country.

While USAID does not currently have a bilateral presence in any of these countries, the Agency's Strategies for Sustainable Development provides that "in countries where USAID's presence is limited, but where aid to non-governmental sectors may ... influence a problem with regional or global implications, USAID may operate from a central or regional base, may focus on policy and institutional changes in the public sector, or may support work of U.S. or indigenous NGOs or institutions of higher learning." CARPE fulfills this mandate.

The House of Representatives' Committee on Appropriations has also recommended that USAID "*should be able to carry out regional programs in countries where AID has nor formal*

*mission,*" specifically mentioning environmental programs among the categories eligible for regional programs which might continue *"without the presence of a mission in a country* (Committee on Appropriations, Foreign Operations Bill, June 1995).

The design of CARPE is fully consistent with the efforts to reinvent USAID that is currently underway. The absence of bilateral missions will make CARPE unique, even for a regional project, and has necessitated the design of an innovative and flexible implementation structure. Field activities will be carried out by U.S. Private Voluntary Organizations (PVOs) and non-governmental organizations (NGOs) under cooperative agreements or grants. While keeping in mind the need to ensure that the activities carried out under these cooperative agreements contribute to the achievement of CARPE's objectives, USAID will give as much latitude as possible to the cooperators during project implementation. The principal collaborators for this project have substantial experience in the Congo Basin, and we believe that they can be relied upon to develop activities that are consistent with the objectives of the project. USAID's management focus will be on fostering greater integration of their discrete activities.

Additional support for these field activities will be provided through existing projects managed by USAID's Bureau for Global Programs, Research, and Technical Support. The potential collaborators have been heavily involved in the design of the project, and the field level activities will be largely designed by our PVO and NGO partners during the initial stages of implementation. CARPE will fund cooperative agreements with the World Wildlife Fund (WWF) and the Wildlife Conservation Society (WCS), to support and expand their field programs and activities in the Congo Basin. WWF and WCS are the only U.S. conservation organizations with significant programs and active projects in the Congo Basin region. The cooperative agreements with these PVOs will serve as the nucleus for a broad range of other CARPE-funded activities.

CARPE will also fund a grants program that will support a wide range of field and research activities throughout the Congo Basin region. The grants program will be managed through the Biodiversity Support Program (BSP), a component of the Global Bureau's Conservation of Biological Diversity Project. BSP is implemented by a consortium of PVOs (World Wildlife Fund, the Nature Conservancy and the World Resources Institute).

Funding under CARPE will also be provided to the PVO/NGO NRMS Consortium (comprised of three PVOs, World Learning, CARE and WWF) which has extensive experience in the region in strengthening indigenous environmental NGOs. CARPE will support the Network for the Environment and Sustainable Development in Africa (NESDA), an African NGO which can play an important role in policy dialogue on environmental issues in the region. CARPE will also include an analytical program aimed at answering some of the key questions facing policy decision makers in the region.

The Africa Bureau has begun to establish close working relationships with a variety of donor agencies and non-U.S. environmental groups active in the Congo Basin region, to leverage additional support for activities initiated under CARPE and to ensure that important policy issues

are addressed on the widest possible basis. A proposal is presently being developed by the UNDP to secure Global Environment Facility (GEF) co-funding for CARPE.

Since this project will be implemented with DFA funds, the Africa Bureau will be responsible for its management. A US Direct Hire Project Officer in the Africa Bureau's Office of Sustainable Development/Productive Sector Growth and Environment (AFR/SD/PSGE) will be responsible for the strategic management of the project and will ensure that project resources are used according to project objectives. He or she will supervise a Washington-based Resources Support Service Agreement (RSSA) Project Manager, who will be responsible for day-to-day oversight of the project. Field-level management will be carried out by BSP and the cooperating PVOs.

## Illustrative Budget

The FY 95 obligation for this project will be \$4,005,000 million. An illustrative life-of-project budget is presented in the table below:

<b>Line Item</b>	<b>Amount</b>
Cooperative Agreements to Support WWF and WCS Program in the Congo Basin	\$4,802,500
Grants Management by BSP	3,730,000
Grants Program Management, Technical Support, Training, Analysis, and Congo Basin Environmental Specialist (BSP)	2,324,000
Technical Assistance and Training from FRM II Project	167,500
Support for Data Collection and Analysis, including remote sensing and GIS (e.g., through NASA/Goddard)	645,000
Support for Strengthening Indigenous NGOs (e.g., through PVO/NGO NRMS Program)	566,000
Support for Regional Planning and Policy Reform (e.g., through NESDA and WRI Policy Consultative Groups)	700,000
Project Management, Evaluations and Audits	1,070,000
<b>Total</b>	<b>\$14,005,000</b>

(Note that this table does not include \$995,000 in pre-CARPE activities carried out by the project collaborators and funded separately; details are provided in Annex B, Table 1.)

## CENTRAL AFRICAN REGIONAL PROGRAM FOR THE ENVIRONMENT

### I. PROJECT RATIONALE

#### A. The U. S. National Interest

The Congo Basin contains the second largest area of contiguous moist tropical forest in the world, and the largest such expanse in Africa. Central Africa's tropical forests (of all types) cover approximately 2 million square kilometers; the Congo Basin's moist deciduous forests<sup>1</sup> cover approximately 1.14 million square kilometers, nearly 20 percent of the world's remaining area of this biome. This forest covers parts of Cameroon, the Central African Republic, and Zaire, and most of the Congo, Equatorial Guinea, and Gabon.

The region is home for some 60 million people, of whom 22 million are in urban areas. Given present rates of population growth, the region is expected to contain 150 million people by the year 2025. Population density is, on the whole, quite low, with a regional average of 14 persons per square kilometer. There is considerable variation within the region, however, ranging from 4.5 persons/km<sup>2</sup> in Gabon, to 25.4 persons/km<sup>2</sup> in Cameroon. While much of the landscape remains sparsely populated, rapid urbanization has created severe localized pressures on the resource base. In the absence of more sustainable resource use practices, this rapid population growth will lead to increasing deforestation and biodiversity loss. Recent deforestation trends have been troubling, and pressures are building which could further accelerate forest loss in the region.

The Congo Basin is a watershed of local, regional and global significance, and it is within the self-interest of the United States Government to support the rational and sustainable development of this watershed in a manner which also addresses global environmental concerns. However, a complex political and economic situation limits USAID's ability to address this important environmental challenge through bilateral programs. While USAID continues to support certain activities in Congo, CAR, Equatorial Guinea and Gabon under the Small Country Program Strategy, it does not have a physical presence in any of the six countries encompassing the Congo Basin. USAID has closed its once-large programs in Cameroon and Zaire and will not implement field activities in those countries with CARPE funding. There are, however, opportunities for USAID to expand its leadership role among U.S. Government agencies, and among the donor community, in promoting the sustainable use of the forest resource in central Africa.

For these reasons, and because central Africa's tropical forests represent a more-or-less continuous block of ecosystems, a regional approach has been taken in designing the **Central African Regional Program for the Environment (CARPE)**. This \$14 million (for the first five

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<sup>1</sup> This includes rainforest plus moist deciduous forest (FAO, 1992)

years) project is designed to provide: (1) a mechanism to support conservation and sustainable resource use activities in the tropical forests of the Congo Basin; and (2) a flexible instrument to carry out an analytical agenda and foster regional coordination in dealing with environmental issues.

## B. The Perceived Problem

### 1. The Threat of Global Climate Change

#### a. The Global Perspective

Human activity is changing the Earth's environment at an accelerating rate. These changes will affect our health, the survival of plant and animal species, and the ability of developing countries to sustain their economic growth. The world's population has tripled since 1900, while industrial production has increased 40-fold since 1950. These trends have led to enormous increases in energy consumption and generated massive amounts of pollutants. The world's tropical forests have been reduced to about 55 percent of their original cover, with an estimated 100,000 square kilometers being lost each year.

These activities are rapidly increasing the concentration of carbon dioxide (CO<sub>2</sub>), methane, nitrous oxides, and chloro-fluorocarbons (CFCs) in the atmosphere. By trapping the sun's heat, these gases produce a greenhouse effect which threatens to alter the earth's climate, increasing temperatures, changing rainfall patterns, and raising sea levels. Scientific advisory committees to the United Nations and the National Academy of Sciences have estimated that the global mean temperature could rise by 1.5 to 4.5° C by the end of the century, assuming the continuation of current trends. In comparison, the earth's mean temperature has risen only 0.3 to 0.6° C in the last century, and probably has not varied by more than 1-2 degrees over the last ten thousand years.

Although the magnitude, rate, and geographic distribution of potential climate change are uncertain, their impacts are likely to be far-reaching and damaging over the long-term. Increasing temperatures, changes in precipitation patterns, and associated environmental changes, such as rising sea levels, will seriously disrupt ecological communities and agricultural systems. The population of developing countries, who are dependent on natural resources for survival and who often live at the margins of subsistence, are especially vulnerable. Environmental and social problems in regions already under stress will only be exacerbated by global climate change. In addition, most developing countries lack the technical and financial resources needed to adapt to, and protect themselves from, the impacts of climate change.

The accumulation of greenhouse gases in the atmosphere results from several sources, including:

- (1) industrial activities, such as the burning of fossil fuels and cement production;

- (2) landscape change, notably the massive clearing of forests for conversion to agriculture, which releases the carbon stored in forest biomass;
- (3) agricultural activities, such as wet rice cultivation and livestock, which release methane; and
- (3) savanna burning, which releases methane and trace gasses and may prevent natural regeneration of woody vegetation. <sup>2</sup>

Currently, the primary source of greenhouse gasses is industrial activity (e.g., the production and consumption of fossil fuels, production and use of CFCs, and high input agriculture) in developed countries. In the coming decades, developing countries will significantly increase their energy consumption in order to support their economic growth.

The tropical forests, which contribute up to 30 percent of all CO<sub>2</sub> emissions when burned, are located in developing countries, primarily Brazil, Indonesia, and central Africa. These forests may also serve as important carbon "sinks" (that is, forests absorb more CO<sub>2</sub> during their growth than they release during decomposition).

In Africa, the primary sources of greenhouse gas emissions are deforestation and savanna burning. The Congo Basin forest and the drier woodlands that border it represent a vast reservoir of carbon, over half of all vegetative carbon on the continent. Present greenhouse gas emission levels from the Congo Basin region are modest. If clearing rates continue to rise, however, a substantial amount of the carbon currently locked up in these forests could be released into the atmosphere in the form of CO<sub>2</sub>, thus contributing significantly to global climate change.

#### **b. The Regional Perspective**

While the global impact of increased deforestation in the Congo Basin will be important, of much greater significance will be the anticipated environmental impacts of deforestation on the Congo Basin itself. The changes in regional rainfall patterns and decreases in soil fertility which would result from deforestation are likely to be more immediate and more damaging over the short-term than the indirect impacts that would eventually result from global climate change.

Between 75 to 95 percent of the Congo Basin's rainfall is from recycled water generated by evapotranspiration within the region. This is dramatically different from other major tropical watersheds in the world. For example, the Amazon Basin recycles only 50 percent of its water, and parts of Asia recycle less than 20 percent. This fact has potentially immense significance, since the water flow which drives the Congo Basin ecosystems is more susceptible to internal degradation and localized climate change. Abnormally low water levels, for example, have already been reported in some river systems of central Africa.

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<sup>2</sup> A third factor, the release into the atmosphere of CFCs, a by-product of industrial processes, affects the earth's protective ozone layer.

Therefore, for the Congo Basin, the most serious development threat related to climate change will be the increased regional variability of climate, particularly rainfall patterns, that would result from deforestation and increased greenhouse gas emissions. Declining precipitation levels and increased variability in rainfall in recent years have contributed to economic and political instability over much of the continent.

Deforestation in central Africa is primarily the result of unsustainable agricultural and logging practices, although fuelwood and charcoal consumption around densely populated areas are contributing factors. While most of the forests of central Africa have, so far, experienced lower rates of clearing than other tropical forests, they represent a huge economic resource certain to be utilized. The challenge will be to use the forests such that overall carbon stocks are neither depleted nor degraded, thereby avoiding greenhouse gas emissions and environmental degradation. In comparison with West Africa, which has already lost much of its forest area, central Africa presents an opportunity to avoid the social, economic, and environmental costs of forest loss and degradation.

## **2. The Threat of Biodiversity Loss**

The loss of biological diversity is greater today than at any time since the dinosaurs died out 65 million years ago. The tropical forests of the world, which contain an estimated 50 to 90 percent of the world's species, are the focal point of this biodiversity loss. Worldwide, approximately 100,000 square kilometers of tropical forests are cleared annually, and rates are increasing. Some scientists believe that 25 percent of the world's plant species, and higher proportions of vertebrate and invertebrate species, could die out over the next three decades unless deforestation rates are slowed immediately.<sup>3</sup>

As our planet becomes more and more crowded, its rainforests will become increasingly important as storehouses of genetic diversity and variation. The loss of untold numbers of plant and animal species and their habitats will impoverish the natural world for future generations. This loss in biodiversity would also eliminate raw materials which could be critical for advances in medicine, agriculture, industry, and other fields.

Africa's biological resources -- its crops, livestock, fisheries and forests -- are among its most important resources. They yield food, fiber, and fuel that the population needs, and provide the exports and jobs that are the bedrock for broad-based, sustainable growth. The loss of biodiversity would clearly threaten Africa's long-term development.

The rainforests of central Africa form one of the planet's last great tropical wilderness areas. The Guineo-Congolian Regional Center of Endemism, as this region is also known, was the area from which much of Africa's existing biological diversity originated. Of an estimated 8,000 species of plants, perhaps 80 percent are endemic to the region. It is also the richest area

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<sup>3</sup> World Resources Institute, et. al., Global Biodiversity Strategy, p. 7

for fauna in terms of numbers and level of endemism, with 655 species of birds (36 percent of which are endemic) and 58 species of mammals (45 percent of which are endemic). Of these, 16 species of birds and 23 species of mammals are considered threatened or endangered. The region supports the world's largest populations of lowland gorillas, chimpanzees, bonobos (pygmy chimpanzees), and forest elephants, as well as a range of important flora and fauna, many of which have, or may have, significant economic value.

Our knowledge of the biodiversity in the Congo Basin is limited and we do not know its potential long-term value. Thus, while protecting known species is important, perhaps an even greater justification for conservation measures is to maintain the options inherent in the conservation of biodiversity. For those living in the region, however, the most fundamental value of biodiversity is its integral role in the vitality and resiliency of the ecosystem upon which their livelihood depends.

### 3. Deforestation in Central Africa

Avoiding the negative impact of climate change and protecting biodiversity will require reducing the rate of deforestation in the Congo Basin. Accurate statistics on forest areas, the extent and distribution of vegetation types, and clearing and reforestation rates are limited. The estimates that do exist of the extent of closed forests, open forests, and woodlands in the Congo Basin vary widely, as do estimates of the rates of deforestation in the region. Tables 1 and 2 provide two estimates of forest area and deforestation within the region, while Table 3 provides an estimate of changes in forest area in the region over time.<sup>4</sup>

Table 1: Area of Tropical Moist Forest and Annual Loss ('000 ha.)

	Rainforest	Moist Deciduous	Montane	Total	Annual Loss
Africa Total	86,411	251,348	35,256	373,015	4,101
Central Africa	78,718	113,666	10,071	202,455	1,140
Percentage	91.1	45.2	28.6	54.3	27.8

Source: FAO 1990 data and WRI 1994

Table 2: Annual Logging in Closed Broadleafed Forest ('000 ha.)

<sup>4</sup> A discussion of the variance in estimates of forest cover and deforestation is included in Biodiversity Support Project, Central Africa: Global Climate Change and Development (1993), Technical Report, pp. 24-29.

Country	Logging (1000 ha./year)	Percent of Region
Cameroon	110	19.1
CAR	55	9.6
Congo	22	3.8
Equatorial Guinea	3	0.5
Gabon	15	2.6
Zaire	370	64.4
Total	575	100

Source: FAO 1990 data, and WRI 1994

Table 3: Forest Area Projections through 2040 (km<sup>2</sup>)

	Forest Area in 1980	Forest Area in 2000	Forest Area in 2020	Forest Area in 2040
Cameroon	179,200	161,192	140,167	117,156
C.A.R	35,900	32,382	28,426	24,192
Congo	213,400	204,260	192,896	179,707
Eq. Guinea	12,950	12,177	11,302	10,341
Gabon	205,000	199,481	193,037	186,762
Zaire	1,056,200	960,199	849,209	728,736

Source: Barnes, R.F.W., "Deforestation Trends in Tropical Africa", *Afr. J. Ecol* (1990), vol. 28, p. 168.

Because the region's forest stock is vast, deforestation rates are relatively low in comparison with other areas of the tropics, on average 0.5 percent annually compared, for example, to 1 percent annually in coastal West Africa (FAO 1992). However, in terms of actual area cleared annually, the forest loss in the Congo Basin is substantial. Based on the 1992 FAO report, the loss of tropical forest in central Africa between 1980 and 1990 was on the order of 114,000 km<sup>2</sup>. Landscape change of this magnitude represents a significant release of greenhouse gases.

Also, clearing rates in Central Africa are rising and, given the current demographic and economic dynamics of the region, are likely to continue to increase. The root causes of deforestation are readily apparent. They include annual population growth rates of 2.4 to 3.5 percent, insufficient financial, technical, and institutional capacity, inappropriate macroeconomic policies, economic stagnation and the need to earn foreign exchange. These result in increasing pressures on land and forest resources, in order to meet the food, energy, and building material needs of the countries in the Basin.

Clearing for agricultural purposes is the predominant cause of deforestation in Central Africa. Increasing population pressures are undermining the sustainability of centuries-old systems of shifting cultivation. At the same time, migrants or settlers from outside the forest regions are introducing cultivation practices that are unsuited to local conditions. Faced with diminishing returns, many farmers choose simply to relocate to areas that have been opened up by logging or infrastructure development. The result is an agricultural frontier that advances at the expense of the receding forest. Urban fuelwood requirements also put pressure on nearby forests. In the larger metropolitan areas, such as Kinshasa, Brazzaville and Yaounde, the pressure has resulted in the creation of "urban halos" of deforested land stretching over 150 kilometers from city centers.

Finally, commercial logging poses a serious threat to the forest resource base given the unsustainable and inefficient approaches used. The value and diversity of timber species makes the Congo Basin the last potential source for large-scale logging in Africa. The thirty species of high value timber found in the Basin are being mined in some areas at clearly unsustainable rates. There are few incentives to do otherwise given current policies. While logging companies generally harvest only the most valuable trees, the extraction and transportation of those trees causes significant collateral damage to the forests. Further, the logging roads that are constructed open up formerly inaccessible areas to people who clear the land to establish farms and hunt wildlife.

Along the northern edge of the Congo Basin forest system, a network of protected areas exists and is being expanded. These national parks, forest reserves, and wildlife reserves extend from Zaire's border with Sudan and Uganda in the east, to Cameroon's border with Nigeria, nearly 2,500 km to the west. This area includes a number of dense forest ecosystems, some of which are coming under increasing threat due to factors such as unsustainable commercial logging, bushmeat poaching, and pressure from shifting cultivators seeking new land to farm. The area also includes mixed savanna - forest transition zones, which represent the northern limits of the Congo Basin forest system. Annual burning by cultivators, hunters, and others impedes natural forest regeneration in these areas. Conservation organizations have begun to focus their efforts in this 'northern arc,' in hopes of helping to stabilize the 'frontier' which separates the great equatorial forest system from more arid zones to the north.

Another factor contributing to this approach has been the difficulty of working within Zaire in recent years. Political unrest, the suspension of many bilateral and multilateral sources of funding, and deteriorating communications and transportation networks have led many organizations to reduce their programs in Zaire, or to withdraw entirely. The 'northern arc strategy' has enabled conservation groups to concentrate their efforts on a selected set of threatened sites to the north and west of Zaire, thereby indirectly helping to protect the inner 'core' of the region's forest from external deforestation pressures.

Despite these and other threats, many of the forests of the Congo Basin remain relatively intact, compared to many other tropical regions. This fact offers an important opportunity to promote and apply effective forest management strategies in central Africa, thereby avoiding the

social, economic, and environmental costs resulting from the forest loss and degradation that other developed and developing nations have experienced.

#### 4. Current Conservation Initiatives in the Region

Because of the rich biodiversity of the Congo Basin region, many conservation activities have been undertaken in the past to protect rare or endangered species (e.g. elephants, rhinos, gorillas), as well as the forest ecosystems which are their habitat. Within the six countries of this region, a total of 51 sites are recognized as protected areas according to IUCN criteria (although the effective status of these areas is another issue altogether). Several more are under consideration. The total area covered by these sites is greater than 200,000 km<sup>2</sup>, approximately the area of Utah and double the area of Portugal (see Table 4).

Table 4. Number and Area of Protected Area Sites, and Percentage of National Land Area (data for 1993)

	Sites	Area (km <sup>2</sup> )	Percent of Land Area
Zaire	8	99,170	4.2
Cameroon	14	20,500	4.3
CAR	13	61,060	9.8
Congo	10	11,770	3.4
Gabon	6	10,450	3.9
Eq. Guinea	0	0	0
<b>Total</b>	<b>51</b>	<b>202,950</b>	<b>5.1</b>

\* IUCN categories I-V

Source: World Resources Institute, *World Resources 1994-95*; Table 20.1, p.316.

Many of these protected areas are poorly managed, however, and their effectiveness as mechanisms for the long-term conservation of biological diversity is uncertain. As with protected areas in other parts of Africa, sites across the Congo Basin are inadequately managed and often are not properly demarcated on the ground. As a result, hunting, fuelwood collection, and other activities often take place despite prohibitions, while poorly paid staff (often lacking transportation and communication facilities) are unable or unwilling to enforce regulations. Timber concessions may even be granted in areas classified as protected, placing further pressure on these sites.

Environmental initiatives in the central Africa region have begun to address these problems through a variety of activities. For example, conservation groups are carrying out a number of projects in key protected areas to strengthen management, train staff, and improve demarcation and enforcement, while at the same time conducting scientific research to better understand ecological processes. This knowledge is essential in developing sustainable use plans which can halt the present patterns of resource degradation and the gradual disappearance of once-abundant species. This requires a significant on-the-ground presence, sometimes for extended periods of time.

Several U.S. private agencies and research institutions are active in the environmental sector in the Congo Basin region. Of the on-going, recently completed, or recently-proposed environmental activities by U.S. PVOs in the central Africa region, a large proportion of the activities being undertaken are being implemented by either the World Wildlife Fund (WWF) or the Wildlife Conservation Society (WCS). Together these two PVOs account for fully three-quarters of the U.S. environmental or conservation PVO activities in the central Africa region, many financed partially or wholly by USAID. Other major sources of funding include GTZ, the World Bank, and the GEF. The Netherlands WWF has recently provided a large grant for WWF activities in Cameroon, and the British ODA has been supporting efforts in Korup National Park for many years.

Table 5: U.S. PVO Conservation Activities in Central Africa (on-going, recently completed, or proposed)

Location	Activity	Agency	Funding
Regional	Integrated forest monitoring	WCS	USAID/BSP
	Park warden training	BSP/WCS	USAID
	Remote sensing of central African forests & savanna	Univ. of MD NASA	USAID/BSP
	Community forest management training	WWF	USFS
	African professional development	WWF	WWF
	Reg. wildlife training, Garoua	WWF	DANIDA, WWF
	Regional forest policy/timber certification (proposed)	WRI	USAID?

Location	Activity	Agency	Funding
	Central Africa climate change study	WRI/NASA Univ. of MD	USAID/BSP
	Forest elephant survey	WCS	WCS
Cameroon	Korup National Park	WCS	USAID
	PVO/NGO NRMS	EIL/WWF/CARE	USAID
	Forest cover mapping/remote sensing, ONADEF	BSP	USAID/BSP
	Biodiversity & social survey in SE region	WCS	USAID/BSP
	Botanical inventory	Smithsonian	Smithsonian
	Elephant conservation & human interaction	WWF	USFS
	NEAP, Govt. of Cameroon	WWF	World Bank GTZ, USAID
	Elephant & social survey - SE region	WWF	WWF
	Mt. Kilum National Park	WWF	WWF, USAID
	Rhino conservation - northern region	WWF	WWF
	Analysis of sustainable logging	WWF	WWF
	Protection of mangroves in Rio del Ray	WWF	WWF, GEF
	Dja Reserve	WWF	WWF
	Protected area management in SE region	WWF	WWF
	Conservation of Mt. Kupe	WWF	WWF, USAID
	Environmental NGO assessment	WRI	USAID/BSP

Location	Activity	Agency	Funding
	NGOs & environmental policy reform	WRI/FSP	USAID/FSP
	Forest sector assessment	consultant	USAID
	Korup National Park	WWF	ODA, WWF, EC
Congo	Nouabalé-Ndoki	WCS	USAID, USFWS, WCS, GEF
	Gorilla & chimpanzee research	US scientists	foundations
	Forest Conservation Trust Fund	WWF	GEF
CAR	Dzanga-Sangha National Park/Reserve	WWF	USAID et al.
	Bangassou National Park/Reserve (proposed)	WWF	GEF
	Bangassou planning survey	WWF	USFWS
	Wildlife research	WCS	WCS, Fulbright
Gabon	Minkebe, Gamba & Petit Loango Reserves	WWF	WWF
	Impact of logging on elephant & gorilla	WCS	WCS
	Lope Forest Reserve	WCS	WCS, ECOFAC
	Wildlife Conservation Dept. training	WWF	WWF
	Impact of elephants on wildlife & agriculture	WWF	WWF
	Wildlife trade and conservation	WWF	GEF

Location	Activity	Agency	Funding
	Botanical inventory	Missouri Botanical Garden	Missouri Botanical Garden
Zaire	Zairian tropical forest evolution study/remote sensing	Univ. Louvain	BSP/USAID
	Ituri Forest Research Training Center	WCS	USAID
	Comparative forest dynamics/ecology research	WCS	WCS
	Ituri forest management	WWF	WWF, World Bank
	Harvard Ituri health research	Harvard	
	Pygmy chimp research	Yale, Stonybrook	
	Virunga National Park	WWF	WWF
	Garamba National Park white rhino conservation	WWF	WWF
	Kahuzi-Biega National Park	Frankfurt Zoo	GTZ
	Eastern Zaire forest & gorilla survey	WCS	WCS
	Okapi Wildlife Reserve	WCS	GEF
	Ituri forest social survey	WCS	World Bank

Other donor agencies are also active in the environmental sector in this region, mostly working in a bilateral assistance framework. The Africa Bureau has begun to establish close working relationships with a variety of donor agencies and non-U.S. environmental groups active in the Congo Basin region, to leverage additional support for activities initiated under CARPE and to ensure that important policy issues are addressed on the widest possible basis. This will also enable existing bilateral programs to become increasingly integrated into a regional context, and to facilitate the development of regional approaches toward improved forest management and sustainable resource use across the countries of the Congo Basin. CARPE will be one of the very few environmental initiatives able to address cross-cutting issues in such a regional way, and has already attracted a significant level of attention from other donors. For example, a

proposal is presently being developed by the UNDP to secure Global Environment Facility (GEF) co-funding for CARPE, to strengthen the regional and participatory aspects of this USAID initiative and to buy into the strategic approach it is developing.

## **II. RELATIONSHIP TO USAID AND HOST GOVERNMENT STRATEGIES**

### **A. Relationship to USAID Strategies and Guidelines**

USAID's Environmental Strategy<sup>5</sup> of June 1994 recognizes that environmental problems increasingly threaten the economic and political interests of the United States and the world at large, and specifically points out that the U.S. will not escape the effects of global climate change, biodiversity loss, and unsustainable resource depletion. The Agency's Environmental Strategy establishes two strategic goals:

- Promoting sustainable economic growth locally, nationally and regionally by addressing environmental, economic, and developmental practices that impede development and are unsustainable; and
- Reducing long-term threats to the global environment, particularly loss of biodiversity and climate change.

CARPE is directly relevant to the attainment of both strategic goals. It will address the problem of the unsustainable exploitation of forests in the Congo Basin as a means of ensuring the sustainable economic growth of the region. It will also directly address the growing concerns expressed in the strategy statement with respect to the expanding sources and diminishing sinks of greenhouse gas emissions and the impoverishment of the planet's biological diversity at the genetic, species and ecosystem levels.

CARPE will also follow the operational approaches outlined in the Agency's Environmental Strategy. It will encourage regional approaches to resolving environmental problems. CARPE will pursue partnerships with the U.S. and international community of PVOs, universities, professional and academic groups, scientific organizations, and the private sector to identify priority areas and appropriate approaches. It will actively support environmental initiatives by PVOs and indigenous NGOs. It will encourage collaboration among government agencies, the private sector, and local groups, and will promote local participation in problem identification, implementation and evaluation. CARPE will also encourage the development of an institutional and policy capacity within recipient countries to address environmental issues.

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<sup>5</sup> See USAID, *Strategies for Sustainable Development*, March 1994.

CARPE will draw upon extensive analytical and implementation work carried out by donors and collaborators over the last few years. It will build upon and support the existing field programs of American and African NGOs, and work to strengthen or develop regional and sub-national strategies related to the environment. The project should also provide a flexible framework for cooperation among USG agencies in addressing the resource conservation problems of the Congo Basin.

### **1. The Global Climate Change Initiative**

CARPE represents an intrinsic element of USAID's GCC Strategy. Formulation of this strategy began in 1990, when the U.S. Congress directed USAID to pursue a Global Warming Initiative emphasizing the need to reduce emissions of greenhouse gases through strategies consistent with economic development" (Public Law 101-513). The GCC Initiative instructed USAID to:

- Focus tropical forestry assistance programs on the key developing countries which are projected to contribute large amounts of greenhouse gases to the atmosphere; and
- Assist countries in developing a systematic analysis of the appropriate use of their tropical forest resources, with the goal of developing a national program for sustainable forestry.

The Agency Guidelines stated that the Agency's goal was to mitigate to the extent possible the threat of global climate change. Three objectives were specified: (1) to reduce the emission of CO<sub>2</sub>, methane and other trace gases; (2) to increase the earth's capacity to store carbon; and (3) to reduce the use of environmentally damaging chlorofluorocarbons (CFCs).

The Africa Bureau's involvement with the design of an activity related to the GCC Initiative was based on a Central Africa Global Climate Change Study (CAGCC), which was carried out by the BSP with substantial input from the National Aeronautics and Space Administration's Goddard Space Flight Center (NASA/GSFC), the University of Maryland's Department of Geography, and the World Resources Institute (WRI).

The CAGCC Study focused on the six countries in central Africa that together contain the largest remaining continuous block of closed forests on the continent. These were Cameroon, Central African Republic, the Congo, Equatorial Guinea, Gabon, and Zaire. The overall goals of the study were: (1) to assess the present understanding of current and potential CO<sub>2</sub> emissions from deforestation in central Africa, and assess methods for improving this understanding; (2) to determine the socio-economic factors driving human activities in the forests and options for reducing CO<sub>2</sub> emissions from these activities; and (3) to assess potential impacts of these activities and global climate change on the environment and peoples of the region.

Based on the CAGCC study, the Bureau for Africa's Office of Analysis, Research and Technical Support, Bureau for Food, Agriculture and Resource Analysis Division (AFR/ARTS/FARA) prepared an 'Africa Bureau GCC Action Plan.' The goal of the GCC Action Plan was to strengthen the capacity of African nations to: (1) determine and reduce their contribution to global climate change from deforestation and savanna burning, (2) analyze the potential impacts of global climate change and land use practices on the environment and people of the region, and (3) explore and adopt effective policies to mitigate the potential impacts of global climate change and unsustainable land use practices on the region.

Four primary areas of analysis and action were outlined: (1) analysis of how, why, and where change is taking place in the forests and savannas of the region, (2) assessment of the types and levels of emissions from both the savanna and forest, (3) assessment of the potential impacts of deforestation and biomass burning, and of global climate change, particularly in semi-arid and forest zones, and (4) design and testing of methods for mitigating emissions from biomass burning and deforestation, thereby reducing the potential impacts of unsustainable land use and global climate change.

CARPE will be a major project supporting the Agency's Global Climate Change Strategy, and the only program in Africa addressing globally-relevant issues across borders. CARPE is identified as one of the USG's proposed GCC initiatives under the United Nations Framework Convention on Climate Change.<sup>6</sup>

## **2. USAID's Biodiversity Strategy**

USAID's approach to biodiversity focuses on promoting innovative approaches to the conservation and sustainable use of the planet's biological diversity. Geographically, USAID will maintain a special focus on two types of areas: those richest in biodiversity and facing the greatest threat, and those that are least disturbed and present the greatest opportunity for long-term conservation. USAID's biodiversity strategy also supports the sustainable use of biological resources. This includes: (1) building local capacity for the management of biologically diverse areas; (2) supporting innovative, governmental and non-governmental conservation and research programs; (3) respecting the rights of indigenous peoples; and (4) encouraging the involvement of indigenous peoples and local communities at all stages of decision-making. CARPE will clearly reflect these priorities.

CARPE will also comply with the International Biodiversity Convention, which USAID supports. The objectives of the Biodiversity Convention include: the conservation of biodiversity; sustainable use of its components; fair and equitable sharing of benefits arising out of the utilization of genetic resources; and improving knowledge of biodiversity.

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<sup>6</sup> United States Government, U.S. Climate Change Action Report, 1994.

The proposed project complies with Sections 118 and 119 of the U.S. Foreign Assistance Act (FAA). Section 118 specifically addresses tropical deforestation, and places high priority on the conservation and sustainable management of tropical forests and the maintenance of biological and genetic diversity.

Section 119, entitled "Endangered Species" places a high priority on the preservation of animal and plant species and on protection of endangered species. Section 119 also encourages the participation of local people in activities related to biological diversity and encourages AID to enter into long-term arrangements in which recipient countries agree to protect ecosystems, support research, and avoid assistance that would degrade protected areas.

In the FY 1991 Foreign Assistance Appropriations Act, Congress prohibited USAID from supporting activities that would result in any significant loss of tropical forests or involve commercial timber extraction in primary tropical forest areas. Congress later amended this prohibition to permit commercial logging activities in USAID projects, as long as an environmental assessment is conducted that identifies the potential impact on biological diversity, demonstrates that any timber extraction undertaken will be done in an environmentally sound manner, and demonstrates that the activity will contribute to reducing deforestation. Any activities financed by CARPE will conform to this guidance.

More recently, the U.S. House of Representatives' Committee on Appropriations has called upon USAID to "*provide as high a level of funding as possible*" for efforts in "*the conservation of biodiversity and protection of tropical forests*" "*even if this entails work in close-out or non-presence countries...*" (Committee on Appropriations, Foreign Operations Bill, June 1995)

Finally, the CARPE project conforms to the Africa Bureau's Plan for Natural Resources Management in Sub-Saharan Africa (PNRM), as revised in May 1992. The PNRM identifies two priorities: (1) the potential contribution of natural resources management for sustainable agricultural productivity and rural development throughout the region; and (2) the maintenance of biological systems (e.g. tropical forests, wetlands, savannas) and biological diversity through the melding of conservation and development objectives. The PNRM also identifies the humid coastal and equatorial lowlands as one of four sub-regional priorities.

### **3. The Development Fund for Africa**

CARPE will be funded under the Development Fund for Africa (DFA) and must, therefore, reflect DFA objectives and address its concerns. The purpose of assistance under the DFA is to "help the poor majority of men and women in sub-Saharan Africa to participate in a process of long-term development through economic growth that is equitable, participatory, environmentally sustainable, and self-reliant." One of the critical sectoral priorities identified in the DFA is "Maintaining and restoring the renewable natural resource base primarily in ways which increase agricultural production...."

While the CARPE Project does not focus directly on increasing agricultural production, it nevertheless falls within the DFA mandate. Deforestation-induced changes in rainfall patterns could seriously affect agricultural production, which represents the livelihood of the bulk of the population in the region. By improving our understanding of the overall ecology of the Congo Basin and the threats to that environment, and by guiding the development strategies of governments, donors, and NGOs in the region, CARPE will help lay the groundwork for sustainable increases in agricultural production in the long term.

It should also be noted that the design and implementation of the proposed project will be consistent with the policies contained in the DFA legislation. CARPE will emphasize partnership with African, U.S. and other PVOs that have demonstrated effectiveness in, or commitment to, the promotion of grassroots environmental and development activities. Emphasis will be given to grants for African indigenous NGOs and U.S. PVOs, as called for in the DFA legislation. CARPE's reliance on grants and cooperative agreements which are based on proposals developed by PVOs and others in the field will provide a vehicle for ensuring that local-level perspectives are taken into account during the planning of assistance and that the local population is involved in implementation. Efforts will also be made to ensure that women fully participate in all aspects of the project. Emphasis will be placed on improving the capacity of the countries in the Congo Basin, in both the governmental and non-governmental sectors, to "manage their own environments and natural resources". The CARPE Project will support regional integration and assist the governments of the region, through U.S. PVOs and indirect assistance, "to increase their capacity to participate effectively in donor coordination mechanisms at the country, regional, and sector levels."

#### **4. USAID Policies Governing Activities in Non-Presence Countries**

CARPE will deal with the conservation of the Congo Basin's tropical forest from a regional perspective and in collaboration with the other USG agencies and the donor community. This regional approach is, in part, dictated by the fact that USAID does not have a bilateral presence in any of the six countries encompassing the Congo Basin. While USAID has maintained limited programs in the Congo, CAR, Equatorial Guinea and Gabon under the Small Country Program Strategy, the large bilateral programs in Cameroon and Zaire have recently closed.

Since Cameroon and Zaire are officially USAID "closeout countries", CARPE will not directly fund field activities in those two countries. CARPE will, however, encourage other donors to undertake activities in Cameroon and Zaire which complement CARPE's efforts and will collaborate with those activities to the extent permitted under USAID's closeout guidance. CARPE will, moreover, involve representatives from both the governmental and non-governmental sectors of Cameroon and Zaire in regional activities, such as conferences and workshops. Finally, the level of effort in Equatorial Guinea under CARPE is expected to be minimal, at least in the initial years, due to the absence of established non-governmental organizations in the environmental sector in that country.

While USAID does not currently have a bilateral presence in any of the Congo Basin countries, the Agency's *Strategies for Sustainable Development* provides that "in countries where USAID's presence is limited, but where aid to non-governmental sectors may ... influence a problem with regional or global implications, USAID may operate from a central or regional base, may focus on policy and institutional changes in the public sector, or may support work of U.S. or indigenous NGOs or institutions of higher learning."

USAID activities in these non-presence countries are also governed by:

- The Africa Bureau Small Country Program Strategy, which was approved by the Assistant Administrator for Africa on March 10, 1992;
- An Action Memorandum signed by the Administrator on June 15, 1994 entitled "Mission Closeout - Continuing Activities;" and
- An Action Memorandum signed by the Administrator on November 9, 1994, on "USAID-Financed Activities in Non-Presence Countries."

This guidance permits "truly regional activities" and permits regional bureau projects "of highest priority to USAID and the Department of State." Under the Action Memorandum guidance on activities in non-presence countries, initiation of new activities will be treated as exceptions, requiring specific approval of M, PPC, and the regional bureau, based on explicit criteria, including: (1) the relevance of the activity to the Agency's overall development objectives, (2) its potential impact, (3) the capacity of implementing organizations to carry out the project, and (4) cost-effectiveness and accountability. The House of Representatives' Committee on Appropriations has also recommended that USAID "*should be able to carry out regional programs in countries where AID has no formal mission,*" specifically mentioning environmental programs among the categories eligible for regional programs which might continue "*without the presence of a mission in a country*" (Committee on Appropriations, Foreign Operations Bill, June 1995).

Given its focus on global climate change and biodiversity conservation, CARPE clearly meets the criterion of relevance to the Agency's development objectives. In terms of impact, the guidance requires that a regional project, such as CARPE, have a regional impact, and an impact on global problems. The proposed CARPE Project can be expected to have a very major impact in the decades to come, since it will serve as the foundation for a long-term commitment to addressing global climate change, biodiversity loss, and deforestation issues in central Africa.

The organizations upon which CARPE will rely to carry out its activities have the demonstrated capacity needed to do so effectively and efficiently. In particular, it is anticipated that PVOs with substantial experience in carrying out environmental activities in the Congo Basin will be heavily involved in the implementation of this project.

Finally, in response to the cost-effectiveness criterion of the Action Memo on Activities in Non-Presence Countries, the Implementation Plan in this Project Paper outlines a system that would provide a reasonable assurance of adequate oversight at reasonable cost in terms of personnel. Substantial effort during the development of the Project Paper has gone into determining the optimal management structure for the proposed project, as well as in forging a consensus among the various actors (e.g. various USAID bureaus, the State Department, NGO's) on inter-organizational relationships and responsibilities.

## **5. Other USG Policies**

All of the countries within the Congo Basin region have been excluded from bilateral programs due to programmatic, management, statutory, human rights or other foreign policy considerations. However, the foreign policy imperative of addressing global environmental issues, and the need to deal with the entire Congo watershed argues for the inclusion of all of these countries. CARPE's reliance on PVOs for executing field activities is, in part, an effort to ensure that CARPE is not construed by some of these Governments as constituting a change in overall USG policy regarding bilateral programs. At the same time, the project will remain flexible and leave open the option for expanding its field activities as the political and economic situation in these countries, and USAID's priorities, evolve.

Countries of the region are periodically in violation of the Brooke Amendment to the FAA. However, Section 547(b) of the 1994 appropriations act "withstands" Brooke for FY 95 Development Assistance (DA) and DFA funding where assistance is "for the purpose of supporting tropical forestry and energy programs aimed at reducing the emissions of greenhouses gases with regard to the key countries in which deforestation and energy policy would make a significant contribution to global warming", as well as for biodiversity. This project falls entirely within this provision. While Section 547(b) applies to FY 95 DA and DFA funds, it has been enacted annually for several years. Before FY 96 and subsequent year funds are obligated, it will be necessary to verify that applicable legislation contains similar exceptions.

### **B. Host Country Strategies**

The sustainable management of the Congo Basin ecosystem is essential for the long-term viability of the national economies in the region. Thus, there is a commonality of interest between the developmental needs and aspirations of the population of the Congo Basin and the larger regional and global community. The commitment of governments in the Congo Basin to environmental conservation varies from country to country, however. With the exception of Equatorial Guinea, each of the countries has set aside protected areas (see table 3). The CAR has formally set aside nearly 10 percent of its land area in reserves and protected areas. The Republic of the Congo recently created a new national park with USAID support (Nouabalé-Ndoki, January 1994). Yet the ability of these countries to actually protect the lands is limited.

It is anticipated that CARPE can help mobilize and strengthen the commitment of these governments to environmental conservation.

With the exception of Zaire, all of the Congo Basin countries have initiated National Environmental Action Plans (NEAPs), with support from the World Bank, UNDP, and bilateral donors. Each of the six countries in the region has signed the Convention on International Trade in Endangered Species (CITES).<sup>7</sup> With the exception of Equatorial Guinea, all of these countries were signatories of Agenda 21, which was adopted at the 1992 United Nations Conference on Environment and Development in Brazil (none have ratified the Treaty, however). Agenda 21 calls on national governments and their citizens to protect the global commons in order to ensure sustainable economic growth. With the exception of Equatorial Guinea, the Congo Basin countries have also signed (but not yet ratified) the Framework Convention on Climate Change at the UNCED conference. Actual implementation of the actions called for under these conventions will require significant investments in natural resources strategic planning and policy implementation at the national level. Such assistance can be provided under CARPE.

### III. PROJECT STRATEGIC PLAN

#### A. Project Goal

**The goal of this project is to reduce the rate of deforestation of the tropical forests in the Congo Basin, in order to conserve the biological diversity contained in those forests and, in the long-run, to avert potentially negative changes in global and regional climate.**

In the near or mid-term, this project will not significantly affect the rate of deforestation within the Congo Basin, particularly given the vast social and economic pressures underlying tropical deforestation. However, this project will lay the groundwork for a much larger multi-faceted effort to conserve this ecosystem -- an effort that will involve host governments, international donors, and NGOs. It is likely that such an effort will increase over time, as the nations in the Congo Basin become sensitized to the importance of these tropical resources for their own economic well-being and for the welfare of the world, and as the political systems in countries of the region solidify.

At the goal level, the objectively verifiable indicators should be viewed as long-term measures, often not becoming measurable until well after the project, itself, is completed. One objectively verifiable indicator of the attainment of CARPE's goal will be evidence of a reduction in the rate of deforestation of the tropical forests in the Congo Basin. This will most likely have to be based on an analysis of remote sensing data. Estimates of the current

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<sup>7</sup> Cameroon (9/31/81), C.A.R. (11/25/80), Congo (5/1/83), Equatorial Guinea (6/8/92), Gabon (5/15/89), and Zaire (10/18/76).

deforestation rates vary. Therefore, one of the early tasks in project implementation will have to be to develop measures of past deforestation, possibly based upon remote sensing techniques, that can be replicated to estimate future deforestation rates.

A second objectively verifiable indicator at the goal level will be the maintenance of forest integrity at key ecological sites. A comparison of baseline and endline census data on populations of key indicator species, such as elephants, gorillas and bonobos (pygmy chimpanzees), can serve as a proxy for this.

Since climate change is a complex and long-term phenomenon, no attempt will be made to measure such changes within the context of this project. Analyses could be carried out under the project, however, to identify ways of measuring climate change (e.g. monitoring changes in the populations of various tree species that make up the forest).

There are two assumptions implicit in the elaboration of the above Goal Statement. The first is that deforestation, particularly the permanent conversion of forests into cropland, is the principal threat to biodiversity conservation in the Congo Basin. The second is that the hypotheses advanced in recent studies, including the USAID-funded Biodiversity Support Program study, Central Africa: Global Climate Change and Development (1993), linking deforestation with adverse climate changes in the Congo Basin, are valid. The findings of these studies are discussed above.

## **B. Project Purpose**

The purpose of this project is **To identify and begin to establish the conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin, in a manner which addresses local, national, regional and international concerns.** The conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin are encapsulated in the End of Project Status Indicators provided below.

- Improved understanding of the overall ecology and biodiversity of the Congo Basin biosphere, the threats to that ecosystem, and the potential impact of the degradation of that environment, particularly in terms of global climate change.
- Development of comprehensive long-term strategies for addressing the global climate change and biodiversity issues affecting the Congo Basin ecosystem.
- Development, within the countries in the Congo Basin, of a cadre of trained and committed environmentally-conscious African development specialists (within both the government and non-governmental sectors) that can serve as the nucleus for the

sensitization of national policy makers and the public to the importance of conserving their natural resource base.

- Creation of a policy environment conducive to land use and production systems that conserve the tropical forests and the biodiversity that they contain.
- Identification and testing of field approaches aimed at slowing deforestation in the region and identifying key conditions that influence the effectiveness of these approaches.
- Creation of partnerships among environmental and development-oriented NGOs, researchers, governments, and the international community, aimed at collaboratively addressing Global Climate Change, biodiversity, and deforestation issues affecting the Congo Basin.
- Indigenous NGOs strengthened and playing an advocacy role for the environment. Environmental PVOs and NGOs playing a constructive role in host government policy analysis and formulation.
- Establishment of networks of researchers, local and international PVOs and NGOs, policy makers and technicians interested in conserving the Congo Basin's natural resources.

### **C. Project Activities**

#### **1. Testing and Demonstration of Conservation Approaches**

There are numerous conservation activities at sites across the central Africa region. Many of these are being carried out by two U.S. institutions, WWF and WCS, which have received funds from USAID and other U.S. government sources in recent years. The CARPE program would provide continued financial support for WWF and WCS programs in the region through two Cooperative Agreements. The nature and funding of the specific activities to be carried out under these Cooperative Agreements will be defined in proposals that will be prepared by these PVOs during the initial stages of implementation. In the indicative budget by Output Category shown below, it is assumed that the bulk of the funding provided to WWF and WCS through direct Cooperative Agreements will be applied to the testing and demonstration of conservation approaches. The balance is expected to be channeled toward other kinds of activities such as research, training, and capacity building.

This category also includes development activities specifically designed to relieve pressure on protected areas by stimulating alternative or more sustainable forms of resource use outside of protected areas. USAID attaches a high priority to the development of techniques which

reduce the loss of biodiversity in human-managed landscapes, as well as in areas set aside as national parks and other protected ecosystems. This can include development projects implemented in buffer zones adjacent to protected areas. However, it is also important to introduce more sustainable and more productive forms of resource use on a broader basis across central Africa's forest and forest-savanna transition zones.

Under CARPE, the Micro Development Corps has proposed commercialization of non-timber forest products as a means of raising incomes without damaging the forest. Such initiatives can contribute toward accomplishment of the CARPE goals and objectives. Environmental education also plays an important role. Conservation video programs developed jointly by WCS and the national television service in the Congo are an example of the type of initiatives that could be carried out with CARPE support.

In addition, conservation activities undertaken by other entities in the region, such as African NGOs and qualified government agencies, will be eligible for support under the CARPE Grants Program. Funding levels would depend upon the nature of proposals developed during the course of the CARPE grants program -- there would not necessarily be pre-established allocations within the grant fund for particular types of activities or implementing organizations. Key partners expected to participate within this part of the CARPE program include BSP grantees, WWF, and WCS.

## **2. Capacity-building, Training and Technical Support**

Strengthening the capacity of central African institutions is widely recognized to be a key element of any long-term effort to improve natural resource management within the region, and to make the best use of conservation investments. In the absence of USAID presence in the central Africa region, it will not be practical to channel capacity-building efforts directly to host country government entities. Rather, CARPE will collaborate with non-government organizations to improve governmental capacity. Approaches which foster capacity-building partnerships between US/international PVO's and local NGO's, or between NGO's and government bodies, will be specifically encouraged under CARPE.

CARPE's NGO capacity-building activities will build upon the five years of experience of the USAID-funded PVO-NGO NRMS program in Cameroon. An expansion of this program to the other three countries of the region is now being considered by the PVO-NGO NRMS consortium. Other capacity-building activities within CARPE could be carried out by the African regional group NESDA, based in Abidjan, and by the African Forest Action Network, a consortium of 14 African NGO's which focuses on community forest management. The BSP grants program will also include a substantial analysis and dissemination agenda, with a major emphasis on support for African researchers. Participants expected to be active within this component of CARPE include the PVO-NGO NRMS Consortium, BSP, NESDA, WWF and WCS.

A substantial proportion of the CARPE resources will be devoted to training and technical support activities, in addition to the institutional capacity-building measures described above. This could include such activities as training for protected area managers, in association with the USAID-funded PARCS program, training in ecotourism management and marketing, as well as a broad range of initiatives to improve the quality of forest agency planning, ecological monitoring, and related functions. CARPE will provide many of these services through linkages with the U.S. Forest Service, as well as through assistance provided by BSP in support of field grants.

In addition, several of the countries in the central Africa region are considering adopting "ecolabeling" standards as international markets become more discriminating about the manner in which timber resources are harvested. CARPE could provide technical advice to ensure that export certification standards are ecologically sound and that monitoring systems are able to operate effectively. Key sources of training assistance under CARPE will include the Forestry Support Program, BSP, and NASA/Goddard.

### **3. Analysis and information dissemination**

A central feature of CARPE will be analysis and information dissemination. The central Africa region is known to contain rich biodiversity resources. However, it has received comparatively little scientific attention in the past. Similarly, constraints and opportunities related to sustainable resource use by central Africans are poorly understood. The interrelationships between the wildlife, plant communities, and human population in the region must be clarified, in order to estimate the impact of population growth and changes in settlement and land use patterns on the health of the ecosystem and on the plant and animal populations that it contains.

Conditions across the central Africa region vary substantially. The montane forest zones of Cameroon face very different pressures from areas such as the Bangassou forest region of southeastern CAR. Yet resource managers and policy-makers often lack knowledge of local factors which may have an impact on the sustainability of resource use patterns. CARPE will devote resources towards strengthening the regional and national knowledge base and towards making more widely available the lessons learned from research, pilot projects, and other interventions. Under CARPE, proposals for grant funding will be peer-reviewed, and priority will be given to activities that are broadly applicable throughout the region.

### **4. Regional Planning and Donor coordination**

Tropical moist forest covers more than 2 million square kilometers within the central Africa region, and spans six countries. Cross-border issues are believed to play an important part in deforestation and the disappearance of wildlife. Yet there are few mechanisms within the region for sharing information, harmonizing government policies, or reviewing activities with potential

environmental impacts, such as investments in infrastructure. National governments have not established technical or policy-level communication linkages with neighboring states, while provincial or local governments lack the mandate to do so. Smugglers and poachers are widely reported to operate with impunity in border zones, which, in many cases, may represent regional "hotspots" for environmental degradation.

CARPE will support technical and policy-level contacts between the countries of central Africa. The long-term objective of this effort will be to develop a regional forest management and conservation plan, based on the assumption that national programs by themselves cannot adequately address the full range of problems facing the forest zone of six countries. With funding from BSP, the University of Maryland has already initiated technical-level contact between forest agency staff from Cameroon and Zaire, with promising results. CARPE will support similar activities aimed at strengthening cross-regional linkages. This will not be limited to linkages between governmental agencies, but will also include NGO's and environmental researchers in various parts of the central Africa region. The African Forest Action Network represents one mechanism for such interaction. BSP, the WRI consultative groups, NESDA, and NASA/Goddard represent resources which could support regional integration.

CARPE will provide resources to facilitate donor coordination in the central Africa region. Greater donor coordination would help ensure that scarce resources are not invested in ways that are counter-productive or redundant. It would help in technical areas, such as in defining standards for donor-financed GIS and remote sensing activities, as well as in the policy arena. CARPE will work with the Multi-Donor Secretariat, NESDA, and the WRI consultative groups, to explore channels for fostering greater donor coordination in the region. Table 5 presents an indicative budget for the major categories of CARPE activities.

Table 5. Indicative Budget: CARPE Activity Categories <sup>8</sup>

Activity Category	Amount
1. Testing and demonstration of conservation approaches	\$6,005,000
2. Capacity-building, training and technical support	3,000,000
3. Analysis and information dissemination	3,000,000
4. Regional planning and donor coordination	2,000,000
Total	14,005,000

<sup>8</sup> Funding levels subject to availability of funds and project approval.

## **D. Project Outputs**

### **1. The development and implementation of natural resource management plans for key protected areas and adjacent zones**

Under CARPE, funding will be provided to develop and implement comprehensive natural resources management plans for ecologically sensitive areas of the Congo Basin. CARPE will rely heavily on those PVOs with experience in the region to carry this out, but will also seek to encourage the entry of other PVOs into the region. Currently, there are several protected area management efforts underway. These are being implemented primarily by the World Wildlife Fund (WWF) and Wildlife Conservation Society (WCS). WWF has a substantial integrated conservation and development project in the Dzanga-Sangha area in southwestern CAR and at Garamba in northeastern Zaire. WWF is developing plans for an ICDP activity in the Bangassou region of southeastern CAR with UNDP/GEF funding.

WCS has been instrumental in the creation and management of a new national park (Nouabalé-Ndoki) in northern Congo, near the town of Ouesso, and is also developing plans to create a new wildlife reserve in the Ituri forest of northeastern Zaire. In Cameroon, these two PVOs have collaborated in the management of Mt. Korup National Park and most recently in plans for the Lobeke-Boumbabek region of southeastern Cameroon. WWF and WCS are active in the "Trinational Park" of southeastern Cameroon, the northern Congo and southern CAR under support of several donors. Funds provided by CARPE through grants and cooperative agreements will be used to support some of these efforts, and to initiate others.

Recognizing the need to involve the local community in biodiversity conservation projects, environmental PVOs have implemented 'integrated conservation and development projects' (ICDPs). Experience with ICDPs, however, has been mixed. In part this is because environmental PVOs often lack experience in implementing rural development projects. For this reason, CARPE will endeavor to strengthen the experience of environmental PVOs in this area and to encourage greater involvement in the region by PVOs who have substantial experience in implementing rural development projects. No U.S. PVOs with significant rural development experience presently operate in the forests or in nearby areas of the Congo Basin. CARPE will encourage greater involvement, to the limit of available funds, by such PVOs in these areas, ideally in collaboration with environmental PVOs.

### **2. The identification and pilot testing of ecologically sustainable income-generating forest activities**

Funds provided under the cooperative agreements and grants will also be used to identify and test ecologically sustainable income-generating forest activities. A number of efforts are underway upon which CARPE can build. At present, much of the attention focuses upon the search for bioactive compounds which may prove to have medicinal applications. For example, a plant sample collected in the Korup region of Cameroon in 1987 is now being studied by the U.S. National Cancer Institute for its apparent anti-HIV traits. USAID and the Forestry Support

Program have commissioned a study on biodiversity property rights in Cameroon which could help guide future policy on biodiversity 'prospecting' and ensure that such activities are sustainable and return benefits to local communities. The Missouri Botanical Garden, the Smithsonian Tropical Research Institute, Purdue University, and WWF are among agencies participating, with USAID support, in efforts to inventory and screen Cameroon's biodiversity.

On another level, non-timber forest products such as nuts, oils, and essences represent commercially-valuable commodities which can become a source of sustainable income for communities living in and near tropical forests. For example, a new U.S. PVO, the Micro Development Corps, is developing proposals to work with local groups in the Congo, providing them with technical and marketing assistance to identify commercially-viable products and establish linkages with buyers in industrialized countries. The objective of this effort is to help protect biodiversity in the Congo Basin region by offering sustainable harvesting as a commercially-attractive alternative to livelihoods which result in deforestation. Ecotourism and sport hunting, which are presently being explored by various U.S. and other organizations in the region, represent different approaches toward sustainable resource use. For example, a U.S. PVO, Safari Club International, has proposed a sport hunting program to the Government of Cameroon, and WWF offers traditional hunting and gathering expeditions for visitors to the Dzanga-Sangha protected area in CAR.

### **3. The completion of detailed biological and socio-economic surveys and assessments and cross-cutting analytical studies on issues relevant to the conservation of the Congo Basin**

One of the conditions for improved management of the Congo Basin ecosystem is a better understanding of technical issues and policy options for managing the region's tropical forest resources. Currently, we have a poor understanding of the overall ecology and biodiversity of the Congo Basin biosphere, the threats to that ecosystem, and the potential impact of the degradation of that environment. In general, the biological, geophysical and socio-economic information that does exist is often inadequate and of poor quality. There is little concrete information, for example, on central Africa's current and potential future greenhouse gas emissions. Similarly, there is limited information available on approaches for slowing deforestation while protecting the welfare of the rural poor.

The biodiversity of this region is known to be extensive, but is poorly understood. According to botanists, no more than 30 percent of the flora of Cameroon and Gabon have been described, and at present rates of scientific information gathering, it will be more than 15 years before this task is complete (and by that time, some species will probably have been lost). The Missouri Botanical Garden is developing a plan to train local taxonomists (and "parataxonomists") in order to accelerate the collection of information about the region's plant resources while simultaneously building local technical and scientific capacity. This information will be of value to policy-makers seeking firmer ground on which to establish priorities for biodiversity conservation. The design of the CARPE program reflects a shift away from the "charismatic megafauna" approach of many conservation efforts in the past, towards the use of

ecosystems and landscapes as the units of analysis and planning, with a commensurate shift in the required base of knowledge.

Better information about human-managed ecosystems is also important. For example, better information is needed on the crop genetic diversity of traditionally-planted food crops, such as cassava or plantain. The importance of information of this type has often been underestimated. Yet it can be critical for the sustainable use of the resource base and can represent a significant aspect of the region's biodiversity. While often not directly valued by the external scientific community, food plant genetic diversity may often prove essential in stabilizing farming systems and increasing local incomes without deforestation. It is clear that there is a pressing need for vastly better information across a wide range of topics which bear upon the natural resource issues facing the Congo Basin. Progress in this direction is critical if governments, donors, and NGOs in the region are to more effectively deal with the threat of global climate change, biodiversity loss, and deforestation. The analytic and information dissemination role of CARPE is therefore a key aspect of the program.

CARPE will also support efforts by host governments and others to review environmental policies affecting the region and to educate decision makers about their impacts. CARPE will encourage those environmental PVOs working in the Congo Basin to become more heavily involved in the examination of environmental policy questions. This is because, to be effective in the long run, PVOs must view the resource degradation problem in its broadest sense. Efforts to protect biologically rich areas are doomed if nothing is done to curb the degradation of the surrounding lands.

CARPE will, therefore, include funding for biological and socio-economic assessments and for analytical studies on a broad range of topics. These might include:

- the overall ecology and biodiversity of the Congo Basin;
- the status of the forests and biodiversity in key areas of the Congo Basin;
- the causes and dynamics of deforestation and savanna burning (needed to better understand and predict present and future patterns);
- changes in forest cover over time, including estimates of the amount of carbon stored in the region's land cover types and changes in land use;
- human interaction with the forests in the Congo Basin (trends and conditions), including questions of demographic patterns and trends and land use rights;
- the potential impact of deforestation on the climate of the Congo Basin and the impact of climate change on the ecology of the Congo Basin;
- national and local-level policy issues;

- the feasibility of a Congo Basin Foundation for the sustained funding of the efforts of NGOs and African researchers in the region;
- forest products market development;
- Identification of sustainable agriculture and improved forest management techniques, more efficient biomass energy use, and alternative savanna management practices; and
- opportunities for regional coordination.

#### **4. The formulation of regional climate change and biodiversity conservation strategies**

As signatories to the Climate Change and Biodiversity conventions, the Congo Basin countries need to begin developing technical and policy capacity to meet the obligations of these instruments (see Output #8, below). The limited capacity within the region makes it difficult for these countries to fulfill even the basic reporting requirements called for under the Conventions. CARPE will strengthen the capacity of these countries to identify issues, establish priorities, formulate policies, monitor trends, and take effective actions which contribute to conserving biodiversity, preserving the carbon sequestered in vegetation, and mitigating changes in climate.

USAID has been active in the development of National Environmental Action Plans (NEAPs) in Africa. Currently, these cross-sectoral initiatives are underway in five of the six countries which encompass the Congo Basin (plans for a NEAP in Zaire have been suspended due to the political situation). CARPE will continue USAID's policy of working closely with NEAP participants, such as the World Bank and UNDP, as well as with other donors active in related environmental areas, such as the GTZ, which has been active in implementing the Tropical Forestry Action Plan (TFAP) in several Congo Basin countries.

In addition, CARPE will encourage regional approaches to addressing common problems, for example by supporting regional environmental planning at both the technical level (i.e., technical workshops on the use of GIS for forest management) and the policy level. USAID has already supported, through the BSP program, exchanges of information among forestry specialists within the region. Similar initiatives will be carried out with CARPE support across a wider range of sectors. Early in the life of the project, CARPE will explore opportunities with agencies such as NESDA and the Multi-Donor Secretariat (MDS), to provide technical support for regional policy formulation, and to lay the groundwork for more broadly-based environmental collaboration and policy coordination within the Congo Basin.

In recent years, other U.S. Government agencies (e.g., the U.S. Fish & Wildlife Service, USDA Forest Service, Peace Corps) have sponsored environmental activities in one or more Congo Basin countries. CARPE will provide a vehicle to integrate such activities into a consistent framework leading to increased information-sharing and greater ability to respond to

new opportunities. This will also enhance the U.S. Government's leadership role in the environment sector in terms of donor coordination within the central Africa region.

**5. Better trained field staff of international PVOs and indigenous NGOs, as well as host country government and research personnel, and members of the local population**

At present, the region's institutional capacity, both governmental and non-governmental, is inadequate to fully address environmental issues. In particular, there is a need to strengthen the ability of indigenous NGOs to more effectively implement projects and serve as advocates for environmental conservation in their countries. CARPE will help address these weaknesses through a broadly based training and capacity building program aimed at developing a cadre of trained and committed environmentally-conscious development specialists (particularly Africans within both the government and non-governmental sectors in the Congo Basin). It will also encourage collaboration between international and indigenous PVOs, and between environmental PVOs and those that are focused on rural development activities. Finally, the project will foster the development of information networks linking researchers, local and international PVOs, NGOs, policy-makers and technicians interested in conserving the Congo Basin's natural resources.

**6. Strengthening Indigenous NGOs**

USAID has been working increasingly closely with African NGOs as part of an overall effort to make the Agency's development program more participatory and to improve its impact at the grassroots level. The environmental sector is one in which USAID believes that indigenous NGOs have an especially important role to play. In Cameroon, for example, USAID funded a study by the Forestry Support Program and the World Resources Institute to identify ways to strengthen the capacity of that country's NGO community to effectively play an environmental action, education, and policy advocacy role. Since 1989, USAID has been providing funding to the PVO-NGO/NRMS consortium, which is comprised of World Learning (formerly the Experiment in International Living), CARE, and WWF. The PVO-NGO/NRMS consortium provides professional training, technical support, and information support to African NGOs and community groups working in the environment and natural resources sector. One of the four focus countries of this program was Cameroon, which now has an active multi-donor-funded program of capacity-building and technical support reaching dozens of Cameroonian NGOs and community groups.

CARPE will build upon this existing framework to extend capacity-building and support to NGOs in other parts of the Congo Basin, building upon its experience in Cameroon. CARPE will also collaborate with other donor-funded initiatives in the region which are working with indigenous NGOs. These include the UNDP/GEF Small Grants Programme, the Africa 2000 network, the WWF-organized Forest Action Network, and the Network for Environmentally Sustainable Development in Africa (NESDA) based in Abidjan. The PVO-NGO/NRMS project

has developed close linkages with these multilateral efforts in Cameroon. This will provide a valuable starting point for new initiatives in other parts of the region.

## **7. The Establishment of Research and Policy Networks**

In recent years, an *ad hoc* network of groups and individuals working on environmental issues has emerged within the Congo Basin region, many of whom have been participating in events such as regional networking meetings convened by the Biodiversity Support Program. For example, more than fifty participants, representing nearly thirty institutions, attended a meeting hosted by BSP during May 1994 on the theme 'Central Africa: The Next Ten Years.' CARPE will extend this process to reach and support a much larger number of practitioners within the region. Through a number of sectoral and cross-sectoral activities, CARPE will develop a central African network of environmental professionals who are closely linked to counterparts in neighboring countries and informed of policy initiatives and research findings of potential relevance to their own work. In a region which has some of Africa's poorest communication and transportation infrastructure, forging institutional and informational linkages across the center of the continent represents a significant objective of CARPE.

## **8. Host Country Participation in Global Climate Change and Biodiversity Conventions**

The Framework Convention on Climate Change (FCCC) was signed by a large number of nations at the United Nations Conference on Environment and Development held in Rio de Janeiro, Brazil, in 1992. This convention requires signatories to take specific measures to address climate change issues. These include developing national inventories of greenhouse gas emissions, implementing national mitigation programs, and taking climate change into account in framing social, economic, and environmental policies. It also established a number of new institutional mechanisms for cooperation on climate change issues, including the Intergovernmental Negotiating Committee (INC) and the Intergovernmental Panel on Climate Change (IPCC).

There is a need for greater and more effective participation by central African countries in international global climate change policy discussions, particularly through the INC and IPCC. Participation in these bodies will give central African countries a voice in decisions involving future greenhouse gas emissions. Similarly, increased participation by African scientists in international global climate change research would contribute to both national and global understandings of this problem.

African countries have historically been unable to fully participate in these international associations. This has been due to a variety of reasons, including their lack of access to information, insufficient communication among themselves and with other groups, limited human and financial resources, and institutional weaknesses. By strengthening in-country expertise and addressing some of these other limitations, CARPE could enable central African countries to become more active participants in these policy discussions. Support under CARPE could be provided, for example, to permit national policy makers and technical staff to attend regional

workshops and conferences aimed at increasing technical capacity to estimate impact emissions and response strategies.

CARPE can also provide technical support and training to enable the countries in the Congo Basin to more effectively implement the objectives of the International Convention on Biological Diversity, which was adopted by the United Nations in 1992. The Biological Diversity Convention has, among its objectives, the integration of biodiversity conservation into national planning processes and improving the monitoring of potential threats to biodiversity and mobilizing action against these threats. It calls, for example, for establishing national policy frameworks that promote biodiversity conservation and increased funding for biodiversity conservation. Outside resources can assist the Congo Basin countries to meet these requirements.

### **9. Development of a regional information system/GIS system**

CARPE will support the further development of a regional database and GIS system, building upon the data sets and imagery acquired during the BSP-funded collaboration between the University of Maryland, NASA's Goddard Space Flight Center, and the University of Louvain in Belgium. This effort will work closely with other related activities, such as the Natural Resources Information Management Consultative Group at WRI. The project will ensure that this information is available to researchers, policy-makers, and NGOs within the central Africa region, groups which typically have little or no access to even the limited technical information that presently exists on the Basin.

### **10. Congo Basin Foundation**

CARPE will assess the feasibility of establishing a Congo Basin Foundation, which would be an endowment for the sustained funding of NGOs and the efforts of African researchers in the region. This concept reflects recent experience of USAID missions in Madagascar, Uganda, the Philippines, and Guinea in the development of innovative financing mechanisms. In July 1994, USAID issued a policy determination presenting guidelines for the establishment of endowments financed with appropriated funds. These guidelines would form the basis for CARPE's assessment of the potential for establishing a Congo Basin Foundation as a means of providing a steady stream of financing for local research and development efforts beyond the life of CARPE.

## **E. Project Activities/Inputs**

### **1. Field and Research/Analysis Grants**

Field activities in the CARPE Project will be implemented through assistance instruments, i.e. grants and cooperative agreements, with USAID-registered PVOs, in accordance with Handbook 13, App. 6B and subsequent guidance. The absence of direct USAID presence in the Congo Basin countries will preclude implementation of field activities through contract

mechanisms. Assistance to non-registered PVOs (including indigenous NGOs) will be channeled through registered PVOs.

#### **a. Directly-Managed Cooperative Agreements**

CARPE will provide cooperative agreements to the World Wildlife Fund (WWF) and Wildlife Conservation Society (WCS), to support their program and activities in the Congo Basin. WWF and WCS are the only U.S. conservation organizations with significant programs and active projects in the region, and both have bilateral agreements with host governments of the countries in which they operate. WCS, for example, is implementing projects in Noubalé-Ndoki in the Republic of the Congo and in the Ituri Forest in Zaire. WWF is implementing the Dzangha-Sangha Project in the CAR and is planning a large effort in Bangassou, also in the CAR. WWF and WCS have collaborated in implementing a program in Korup National Park in Cameroon and are both initiating activities in southeastern Cameroon. USAID anticipates that the funds provided under cooperative agreements to support the WCS and WWF programs will help link these and similar site-specific conservation activities to a wider range of environmental initiatives within the region.

These two Cooperative Agreements (CAs) will be directly managed by USAID's Center for the Environment through an OYB transfer from the CARPE project to the Conservation of Biological Diversity project. Technical support will be provided by the Project Officer and Project Manager in the Productive Sector Growth and Environment Division in the Africa Bureau's Office of Sustainable Development (AFR/SD/PSGE). Specific activities to be carried out within these Cooperative Agreements will be proposed by the recipient PVOs, representing their approach to achieving the CARPE project purpose. In negotiating these Cooperative Agreements, USAID will stress the need to ensure that the activities funded are compatible with the broader strategic objectives of CARPE, and that the programs of these PVOs can support other elements of the CARPE Project.

It is likely that CARPE funds under these cooperative agreements will be used to support applied research and to implement sustainable field interventions in environmentally threatened areas. This could include, for example:

- The development of comprehensive natural resource management and operational plans;
- Detailed biological and socio-economic surveys and assessments and the creation of environmental data bases and natural resource inventories.
- Training and technical support for reserve staff, government and NGO outreach workers and members of the local population;
- The identification and pilot testing of ecologically sustainable income-generating activities (e.g. sustained yield harvesting of timber and non-threatened wildlife species,

non-timber forest products, conservation tourism, sport hunting, and agriculture, agroforestry, and fish culture interventions) and limited infrastructure development.

- Design grants to permit PVOs and other implementors to fully elaborate proposed field activities and projects (including proposals for funding from other donors);
- National and local policy studies; and

#### **b. The Grants Program**

In addition to the Cooperative Agreements to WWF and WCS, CARPE will provide grant funding to support a wide range of field and research activities throughout the Congo Basin region. These grants will be issued to individuals and groups (e.g. PVOs, local NGOs, university researchers, and eligible governments), and will include grants for the design and implementation of field activities, and for research and analysis on issues relevant to the CARPE Project. Grants may range from \$20,000 to \$500,000. No maximum LOP funding level for grants has been set, but the intent is to make a large number of small and medium-sized awards, rather than a limited number of large grants.

The grants program will be managed through an OYB transfer to the Conservation of Biological Diversity project and the Biodiversity Support Program. Under this arrangement, a peer review panel will screen grant proposals. Respected outside expertise will be included in this panel. USAID will have a voice in selecting panel members and the CARPE project manager or designate will serve as a member.

The grants will permit CARPE to address a broad range of sectoral and thematic topics beyond conservation within protected areas. Examples of topics eligible for funding under the grants component might include: (1) research on crop genetic resources, particularly botanical studies on traditional crops and landraces whose genetic characteristics may help increase agricultural productivity; (2) use of remote sensing imagery for large-scale forest management planning, and for ecological monitoring and deforestation detection; (3) strengthening the capacity of African NGOs to conduct activities, such as ecological monitoring, environmental awareness, and local resource-use planning; (4) research on techniques to promote alternatives to shifting cultivation and reduce dry-season burning along forest-savanna transition zones; and (5) regional approaches toward establishing ecologically-sound criteria for timber export certification.

## **2. Training, Technical Support, Analysis and Regional Coordination**

To complement the field grants and cooperative agreements, CARPE will access resources through OYB transfers to existing centrally-funded projects, and through directly initiated procurement actions. The primary OYB transfers will be to:

- The Global Bureau's Conservation of Biological Diversity Project (936-5554), which provides funding for the Biodiversity Support Program (BSP); and
- The Global Bureau's Forest Resources Management II (FRM II) Project (936-5556), which provides funding to the USDA Forest Service Forestry Support Program and the U.S. Peace Corps.

**a. OYB transfer to the Conservation of Biological Diversity Project (CBD)**

Through the OYB transfer to the Global Bureau's Conservation of Biological Diversity Project (CBD), CARPE would obtain the services of a consortium of environment PVOs, under the Biodiversity Support Program Cooperative Agreement to:

- Manage the Grants Program;
- Implement the peer review process required to evaluate proposals for grants under the above program;
- Monitor the implementation of field activities and subgrants.
- Furnish short-term technical support to support the field grants and the USAID-managed cooperative agreements;
- Provide short-term training and workshops; and
- Disseminate to key decision makers and field personnel research results and other documents generated under the project or related to its areas of interest.

The BSP team managing CARPE will include a project-funded 'Congo Basin Environmental Specialist' (CBES, 4.5 person years) to provide strategic coherence to CARPE activities and facilitate coordination and networking, particularly with other donors working in the region. Many of the activities supported by CARPE will be at a small scale, implemented by entities which may have limited outreach capacity. Similarly, many of the activities (especially in the research category) may be carried out by specialists with little experience in cross-disciplinary communication. The CBES will play a key role in CARPE, actively promoting the cross-fertilization of ideas and experience. The individual recruited for the CBES position should have experience dealing with a broad range of environmental issues in the region.

In addition, the Specialist will provide strategic coherence to CARPE field activities, ensuring that activities selected by the project for USAID support contribute toward a larger purpose, and that programmatic balance is maintained in both geographic and thematic terms. Finally, the Specialist will serve as the channel for field-level coordination with other donors active in the environmental sector in the Congo Basin countries. BSP will also be responsible for the identification, review and development of the proposals to the grants program. These

functions will be based in the Congo Basin region, in a small field office to be staffed by BSP.

The Conservation of Biological Diversity Project operates largely through the Biodiversity Support Program Cooperative Agreement. The BSP Cooperative Agreement ends in September 1998.

**b. OYB Transfer to the Forest Resources Management II Project (FRM II)**

Through the OYB Transfer to the Global Bureau's Forest Resources Management II (FRM II) Project, CARPE would obtain the services of the U.S. Forest Service Forestry Support Program. The FRM II Project is a 10 year project with a \$45 million in LOP funding (of which \$15 million is anticipated to come from regional and mission buy-ins and OYB transfers). FRM II will continue until the year 2000. The Purpose of FRM II is to promote the contribution of trees to sustainable development and to strengthen the capacity of forestry and natural resources management institutions in tropical and subtropical developing countries.

FRM II will provide forestry and natural resources technical support, through short-term consultancies, training and workshops, to USAID and its projects. FRM II's areas of focus include agroforestry, institution building, tropical forest management, social forestry, remote sensing and geographic information systems, and support for private enterprise development (e.g. harvesting, utilization, and marketing of forest products). FRM II also focuses on donor collaboration, with an objective of strengthening USG participation in various multidonor and host country government initiatives in forestry, the environment, and natural resources.

FRM II is implemented through a variety of mechanisms. These include:

- The Forest Service's Forestry Support Program (FSP), which was established to provide technical support to USAID in forestry and natural resources management. This assistance includes both Forest Service employees and outside consultants.
- A Resources Support Services Agreement (RSSA) with the Forest Service, through the International Cooperation and Development (ICD) Division of the U.S. Department of Agriculture, which provides long-term technical expertise to the Global Bureau.
- A Participating Agency Service Agreement (PASA) with the Forest Service, which allows missions to access technical support.
- A PASA with the Peace Corps, which provides support to Peace Corps' Office of Training and Program Support (OTAPS) Environment Program. The PASA includes funding for program assistance, training (both for volunteers and their host country counterparts) and technical support.

CARPE will access the U.S. Forest Service through the FRM II-supported Forestry Support Program (FSP). The Forest Service would provide technical support to field efforts supported

by CARPE in areas such as forest management, forest industry, and land use management, provide training support, and carry out selected analytical studies.

**c. RSSA to NASA Goddard Space Flight Center**

**(1) RSSA with the NASA/Goddard Space Flight Center for Remote Sensing**

CARPE will enter into a RSSA with the NASA/Goddard Space Flight Center to carry out research on changes in forest cover using remote sensing (NASA/Goddard). This is a follow-on to activities carried out under the BSP Central Africa Climate Change project. Under that activity, NASA/Goddard and the University of Maryland's Department of Geography produced a number of maps based upon remote sensing imagery. These included large-area maps using inexpensive low-resolution imagery whose purpose was to test relatively simple techniques for large-area forest classification and change detection. Maps produced of this type include (i) a Congo Basin forest classification map for the period 1989-1992, which identifies areas of forest degradation or fragmentation and which correlates these sites with the region's network of roads; (ii) a vegetation map for sub-Saharan Africa for the period 1982-1987, which identifies forests, evergreen vegetation, wet and dry savannas, savanna transition zones, and deserts/semi-deserts; and (iii) a vegetation map for the Congo Basin which identifies forests, degraded forest, mixed forest - savanna zones, and wet and dry savannas. In addition, the project produced a high-resolution map using Landsat TM imagery for the border area of southwestern CAR, northern Congo, and southeastern Cameroon -- an area in which U.S. conservation PVOs have several existing or planned project sites.

More recently, the European Space Agency's ERS-1 satellite has been used to acquire radar imagery of the entire Congo Basin region. This data is now undergoing processing and analysis in Germany, and may prove valuable for planners, researchers, and project managers in the region, especially in areas prone to heavy cloud coverage which hampers aerial photography and conventional satellite imagery. In addition, the European Union's ECOFAC project has acquired airborne radar imagery of its project sites in the central Africa region, which includes one protected area site each in Cameroon, CAR, Congo, Gabon, Equatorial Guinea, and Sao Tome.

CARPE will provide effective coordination linkages with initiatives of this type, in addition to continuing the work of mapping and forest system modelling already underway in U.S. agencies such as NASA. The CARPE project will also ensure that useful data sets and products are available to those who most need it but typically have little access to such materials: African scientists, natural resource policy-makers, and NGOs.

CARPE will work with the NASA/Goddard Space Flight Center and the University of Maryland to identify the requirements for, and begin to develop a coordinated, region-wide Geographic Information System (GIS). This will also be a follow-up to activities undertaken, with BSP support, during the Central Africa Global Climate Change and Development Project. A major recommendation coming from that final report of that project was "to conduct an in-

depth study and evaluation of existing information systems relevant to central Africa and global climate change, and begin coordinated GIS pilot projects."

The development of the GIS for central Africa under the Global Climate Change project was begun by a team based at the University of Maryland and the NASA Goddard Space Flight Center. The CARPE project will build upon the foundation of this GIS, using it for a number of important activities, including: (i) development of criteria and standards for selection of research and field grants; (ii) demonstrating and testing techniques for large-scale forest management planning; (iii) training central African NGO staff, scientific researchers, and forest sector officials in the use of GIS and remote sensing for forest planning and monitoring; and (iv) monitoring land-use and forest-cover changes which may affect CARPE activities.

The GIS system presently includes central Africa data sets for nine major themes relevant to the Congo Basin forest sector: climate, population, soils, political and administrative boundaries, hydrology, vegetation and land-use, infrastructure, elevation, and burning. CARPE will provide funding to ensure that these data sets are maintained and regularly updated, and that they are readily available for USAID-funded environmental activities within the region, as well as to other appropriate parties. This program will also provide a strong linkage with the NASA Landsat Pathfinder program, and will ensure that African researchers and policy-makers are able to develop more effective linkages with the international global climate change community. The BSP program has already supported technical advice for Cameroonian and Zairois foresters in the use of remote sensing and GIS for forest management and change detection. Similar activities would be implemented, on a larger scale, through this component of CARPE. In addition, these activities will be carried out in coordination with the WRI Policy Consultative Group.

#### **d. Support for the Policy Consultative Group on Natural Resources Management**

The WRI Policy Consultative Group on Natural Resources Management (PCG), which was created in 1992 under the Environmental Planning and Management (EPM) Project, brings together a small working group composed of 10-15 core members and several associates, each with a background in policy analysis and reform in Africa. Under EPM, the PCG was implemented through a cooperative agreement with the World Resources Institute.

The principal goal of the PCG is to improve the quality of analysis available to Africa on those issues affecting the formulation and implementation of natural resource policies. To accomplish this objective, the PCG:

- Serves as a discussion forum and an advisory board for USAID, African policy makers, and others involved in Africa;
- Provides support to USAID missions in the field;

- Serves as a source of peer review for important studies, reports, and documents; and
- Serves as a clearinghouse for relevant information and documents dealing with natural resources management in Africa.

Because USAID has no bilateral mission presence in the central Africa region, other ways need to be found for CARPE to maintain a policy dialogue with host country governments and with other donors. The policy context has increasingly been recognized as a key determinant of the success of development initiatives, and this is clearly the case in the forest sector. CARPE will also need to closely coordinate its efforts with other donors active in central Africa's forest sector, notably the World Bank, the FAO, and GTZ. The Policy Consultative Group offers a mechanism for dialogue at senior levels with other donor agencies and with sector coordination bodies such as the Forest Advisory Group. The PCG also represents a source of senior-level expertise able to engage in consultations in central Africa at the ministerial and presidential level as these may become appropriate.

The EPM project has also supported the WRI Natural Resources Information Consultative Group (NRICG). The NRICG was set up in 1991 to advise USAID project and host country staff on the use of environmental information systems (EIS) including GIS and remote sensing, for improved environmental monitoring and reporting. Under the EPM Project, the NRICG was coordinated by the World Resources Institute under a cooperative agreement. The NRICG is composed of experts from universities, research centers, international organizations, private firms, and U.S. federal agencies. The federal agencies involved include NASA/Goddard, the USGS/Eros Data Center, and the U.S. Forest Service). In June, 1995 the NRICG was merged with the PCG to form a within the PCG.

The Information sub-group focus is to strengthen the capacity of local entities to use various information technologies to assess and plan energy and natural resource strategies and programs. The NRICG will provide consultative and advisory services on the development and use of information technologies, including GIS. It will provide assistance in reviewing plans for setting up environmental information programs within a department, ministry or NGO, identify opportunities for using spatial analysis in natural resources management, and provide troubleshooting services in NRM data base management.

These activities on behalf of CARPE would be funded through an OYB transfer to the Global Bureau's Environmental Planning and Management Project (936-5517).

#### **e. Analytical Studies**

A broad range of analytical studies may also be carried out under the project. The objective of these studies will be to increase our understanding of the dynamics of the Congo Basin ecosystem and the threats to that system, and to explore options for mitigating those threats and conserving the resource. This component is not specifically funded as a separate component but is expected to be integrated into various project components.

Analytical needs will be identified and prioritized as part of an annual work plan exercise. The establishment of the analytical agenda will begin with a workshop bringing together individuals with extensive experience in the Congo Basin, as well as representatives from the organizations implementing other elements of the project. African participation in this agenda setting process will be encouraged. As African researchers and institutions become more involved in implementing CARPE field activities during the life of the project, they will play an increasingly important role in setting this research agenda.

Execution of the analytical studies could be carried out through a variety of mechanisms, particularly by accessing centrally-funded projects (e.g. through OYB transfers to Global Bureau projects). Possible G Bureau Projects that could provide such assistance include: Environmental and Natural Resources Policy and Training (EPAT) Project (936-5555), the Implementing Policy Change II Project (936-5451), the Forest Resources Management II (FRM-II) Project (936-5556) or the Environmental Planning and Management Project (936-5517).

It is also possible that analyses could be implemented through contracts or agreements with international agricultural research centers. For example, the International Centre for Agro-Forestry Research (ICRAF, based in Nairobi) and the International Institute for Tropical Agriculture (IITA, based in Ibadan, Nigeria) are jointly conducting research on forest zone farming systems at a project site in Mabalmayo, in southern Cameroon. This activity is designed to develop alternatives to slash-and-burn agricultural methods associated with deforestation in some areas of central Africa. Research at Mabalmayo is presently covering such topics as crop production under various combinations of burning, alley cropping with indigenous and exotic species, application of fertilizer and insecticide, the use of forest plant foods, and levels of production at various stages following forest clearing. The lessons learned from Mabalmayo could prove highly relevant to CARPE, and appropriate linkages should be established with the ICRAF/IITA program early on.

#### **f. PVO/NGO NRMS Cooperative Agreement**

Under CARPE, the Africa Bureau (AFR/SD/PSGE) will provide an OYB transfer to the Conservation of Biological Diversity project to establish a Cooperative Agreement with the PVO/NGO NRMS Consortium, expanding this program to increase the technical and institutional capacities of NGOs and PVOs in the Congo Basin.

The PVO/NGO NRMS consortium comprises three PVOs, World Learning (formerly The Experiment in International Living), CARE, and the World Wildlife Fund. It was created in 1989, with funding from the Africa Bureau, with a mandate to strengthen NGO capacities to reduce environmental degradation in sub-Saharan Africa by providing professional training, technical support, and information support. The PVO/NGO NRMS Project has placed particular emphasis on building a national NGO consortium capacity and to facilitate partnerships between NGOs and governments in support of project objectives. The PVO/NGO NRMS Project has worked with NGO consortia in four targeted countries, Cameroon, Madagascar, Mali and

Uganda, and has supported natural resources management activities in approximately 25 others, including several in Asia and the South Pacific.

Assistance from the PVO/NGO NRMS consortium may include:

- Organizational development workshops for NGO staff and others;
- Technical workshops in integrated conservation and development design and implementation;
- Project design workshops;
- Strategic planning missions;
- Institutional and social assessments; and
- Project evaluation missions.

Under CARPE, the PVO/NGO NRMS Project will expand its activities to Gabon, Congo, and CAR. Efforts will be made to integrate NGO strengthening activities carried out by the PVO/NGO NRMS consortium into other CARPE-funded field activities.

#### **g. Support for the Multi-donor Secretariat and NESDA**

AFR/SD/PSGE may also execute a Letter Grant to the World Bank for support to the Multi-donor Secretariat (MDS). MDS activities will include a subgrant to the Network for the Environment and Sustainable Development in Africa (NESDA).

NESDA had its origins at a World Bank-convened workshop in Dublin, Ireland, in December 1990. This workshop was attended by African experts from 17 countries and their counterparts in order to discuss their respective experiences in strategic planning for the environment. At this workshop, the African participants recommended the creation of a regional focus for these kind of exchanges of information and experiences -- a network comprised of African expertise. Initially known as the Club of Dublin, it was renamed NESDA in 1992. NESDA's objectives are to strengthen:

- The capacity of African countries to launch and implement strategic programs for the sustainable management of their environment and natural resources;
- The planning process for the management of environment and sustainable development; and
- Technical cooperation among African countries.

NESDA activities include the organization of regional and thematic workshops and capacity building seminars, the analysis of policies and external reviews of environmental action plans, and the creation of a roster of African experts in different technical areas relevant to strategic framework exercises. CARPE will provide a mechanism to enable USAID to continue drawing upon NESDA input in the preparation and implementation of national environmental actions plans (NEAPs). The experience of NESDA and the MDS will be especially valuable to efforts under CARPE to help the Congo Basin countries develop common approaches toward environmental problems, perhaps in the form of a regional environmental action plan. CARPE will also employ NESDA as one source of regionally-available technical expertise by which to support the grants and cooperative agreements and analytic activities that will be funded. Finally, NESDA will serve as a forum from bringing together host country government officials to discuss environmental issues facing their countries.

#### **h. Funding for Project Management and Coordination**

CARPE will be supporting a wide variety of environmental activities, undertaken by numerous groups, within a vast region in which USAID will not have a direct mission presence. Other donors in the region are supporting environmental activities which will have direct or indirect implications for CARPE. To be most successful, CARPE will have to proactively collaborate with these other donors in order to integrate these efforts.

Internal coordination will be facilitated through regular implementation meetings among the key implementors of CARPE activities. Mechanisms for participation of key partners both in the U.S. and in Central Africa in major management decisions and in information sharing will be developed early in project implementation.

##### **(1) RSSA Project Manager**

AFR/SD/PSGE will prepare a PIO/T and amend the Africa Bureau RSSA Agreement with the USDA's Foreign Agricultural Service International Cooperation and Development division (USDA/FAS/ICD) to procure the services of a project manager for 4.5 person years. This position will be based in Washington D.C., and will be responsible for management of the CARPE cooperative agreements, OYB transfers, and RSSA/PASA's. This position, based within AFR/SD/PSGE, will require significant experience with oversight and management of USAID projects, and with the USAID environmental portfolio in sub-Saharan Africa.

##### **(2) Management Support**

A limited amount of funding will be available to cover administrative costs that do not clearly fall within the above RSSA project management arrangement.

## **F. Donor Coordination**

The Project will coordinate with other donors to leverage additional resources for increased impact and to ensure that our efforts are not undermined by other donor activities. Various bilateral and multilateral initiatives are underway in the forest sector in parts of the Congo Basin, for example with funding from Canada, Germany, and the World Bank. CARPE will provide a focal point for discussion of issues, priorities, and common approaches and to reduce the risk of working at cross-purposes with other initiatives within the region.

USAID has been a major donor in the areas of global climate change and biodiversity conservation in the Congo Basin countries; other key donors include the German GTZ, the multi-donor Global Environment Facility (GEF), the European Union (EU), and numerous international PVOs. CARPE, with its emphasis on regional strategies and capacity building, is expected to leverage GEF and other funds, which otherwise would not be available to the region. The Network for the Environment and Sustainable Development in Africa (NESDA) and the Policy Consultative Group (PCG) are resources to facilitate donor coordination.

The Global Environment Facility (GEF) is another donor-funded initiative which is rapidly becoming a key factor in conservation and environmental programming in central Africa. Launched in 1991 and administered by the World Bank, UNDP, and UNEP, GEF focuses on four environmental problems: global warming, pollution of international waters, destruction of biodiversity, and depletion of the stratospheric ozone layer.

GEF projects underway or in planning in the Congo Basin region include:

- Cameroon -- Biodiversity Conservation and Management (\$5 million);
- Congo -- Wildlands Protection and Management (\$10 million)
- Gabon -- Conservation of Biodiversity through Effective Management of Wildlife Trade (\$1 million);
- Regional -- Acquisition and Distribution of Comprehensive Landsat TM Satellite Imagery (\$1.75 million)<sup>9</sup>; and
- CAR -- Bangassou Dense Forest Conservation and Sustainable Use (proposed; budget not released).

In addition, the GEF Small Grants Program, which is operated by UNDP, has awarded three grants in Cameroon totalling some \$135,000. These grants to Cameroonian NGOs

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<sup>9</sup> This activity has been delayed indefinitely due to loss of the Landsat 6 satellite following its launch in late 1993.

supported media environmental coverage, community-level efforts to curb shifting cultivation and deforestation, and collection of urban waste.

#### IV. COST ESTIMATE AND FINANCIAL PLAN

##### A. Summary Cost Estimate

The budget for phase 1 of CARPE will be \$14,005,000 over five years. Table 6 presents an illustrative life-of project budget. Annex B, Table 1 presents an indicative budget by project activity and input. Note that pre-CARPE analytic activities, funded at a level of \$995,000, are also shown in the budget table in Annex B in order to illustrate the range of activities carried out by proposed CARPE collaborators prior to initiation of the project.

Table 6. Illustrative Budget

<b>Line Item</b>	<b>Amount</b>
Cooperative Agreements to Support WWF and WCS Program in the Congo Basin	\$4,802,500
Grants Management by BSP	3,730,000
Grants Program Management, Technical Support, Training, Analysis, and Congo Basin Environmental Specialist (BSP)	2,324,000
Technical Assistance and Training from FRM II Project	167,500
Support for Data Collection and Analysis, including remote sensing and GIS (e.g., through NASA/Goddard)	645,000
Support for Strengthening Indigenous NGOs (e.g., through PVO/NGO NRMS Program)	566,000
Support for Regional Planning and Policy Reform (e.g., through NESDA and the WRI Policy Consultative Groups)	700,000
Project Management, Evaluations and Audits	1,070,000
<b>Total</b>	<b>\$14,005,000</b>

## B. Proposed Financial Arrangements

### 1. USAID Obligation Schedule

Obligation requirements will be \$4,005,000 million in FY 95, \$3,000,000 million in FY 96, \$3,000,000 million in FY 97, \$3,000,000 million in FY 98 and \$1,000,000 in FY 99.

### 2. Illustrative Disbursement Schedule

An illustrative disbursement schedule is included as Annex B, Table 2.

### 3. Methods of Implementation and Financing

Table 7 presents the proposed methods of implementation and financing for the CARPE Project.

Table 7: Methods of Implementation and Financing

Component	Method of Implementation	Method of Financing	Amount (\$) *
Directly-Managed Coop. Agreements	Coop. Agreements	Direct Payment	\$5,368,500
Grants Program	OYB Transfer, Coop. Agreements, Subgrants	Direct Payment	\$4,310,000
Grants Program Management, Training, and Technical support	OYB Transfers, Coop. Agreements, RSSAs	Direct Payments	\$3,136,500
Project Management & Coordination	OYB Transfers & RSSAs	Direct Payments	\$1,070,000
Audits	Direct Contracts	Direct Payment	\$120,000
<b>TOTAL</b>			<b>\$14,005,000</b>

\* Figures include contingencies and inflation on a prorated basis.

#### **4. Foreign Exchange/Local Currency Budget Breakdown**

In the absence of USAID Missions in the region, no direct disbursements in local currencies are anticipated.

#### **5. Recurrent Costs**

Each of the activities supported (e.g. PVO-managed field activities, networks, GIS system development), will have to be examined during implementation in terms of their implied recurrent costs. Proposals for grants and cooperative agreements, for example, should address this issue. However, major project activities, such as analytical studies and training programs, should have little or no recurrent cost implications. Similarly, given the nature of the activities envisioned, CARPE should not burden public sector institutions with recurrent costs.

### **V. IMPLEMENTATION PLAN**

#### **A. Implications of Activities in Non-Presence Countries**

USAID does not have a bilateral presence in any of the six Congo Basin countries (Central African Republic, Congo, Zaire, Equatorial Guinea, Gabon and Cameroon). This will make CARPE unique, even for a regional project, and will necessitate an innovative and flexible implementation structure.

CARPE is eschewing contracts and relying upon assistance instruments (grants, RSSA/PASAs and cooperative agreements) in large part to minimize the potential USAID administrative burden of the project, both in Washington and in the field. While keeping in mind the need to ensure that the activities undertaken under cooperative agreements are consistent with, and contribute to the achievement of, CARPE's objectives, USAID will strive to give as much latitude as possible to the cooperators for project implementation. The Cooperative Agreements will define the level of USAID's involvement.

#### **B. Procurement Plan**

##### **1. Implementation Mechanisms**

###### **a. Directly-Managed Cooperative Agreements**

Under the CARPE Project, the Center for the Environment (G/ENV/ENR) will directly manage cooperative agreements to WWF and WCS to support and expand their activities in the region. G/ENV/ENR with support from AFR/SD/PSGE will prepare a statement of work and invite each of these PVOs to submit their proposals for the use of the funds available under the cooperative agreements.

The invitation will:

- Provide an overview of the perceived problem and broad outlines of the project, and discuss the types of field activities that are contemplated.
- Outline the project rationale, emphasizing the need to address global concerns and explaining that proposed activities will have to relate to these concerns, particularly with respect to Global Climate Change and Biodiversity.
- Solicit a commitment on the part of the applicants to the broader objectives of the project.
- Discuss the broader analytical agenda of the project, the need for a coordinated approach and soliciting a commitment on the part of applicants to collaborate fully with other elements of the project.
- Require evidence of participation by the applicant's field staff and their host country colleagues in the elaboration of the proposal.
- Discuss the requirements for monitoring progress and impact and require that proposals adequately provide for monitoring and reporting of progress and impact.
- Include, if necessary, a design schedule and specify that the recipient has to complete the design of the field activities and the grant component by a certain date.

The invitation will not specify the activities to be carried out, the geographic locations within the Congo Basin, or the approaches used.

The Proposals submitted by the applicants should:

- Demonstrate a commitment to supporting the project's rationale and objectives;
- Propose major field-level activities to be designed and carried out under the cooperative agreement;
- Identify complementary sources of funding for project activities (including a PVO contribution); and
- Propose, if necessary, a design team, with a scope of work for each team member, and list any candidates for long-term assignment to the project.

G/ENV/ENR and AFR/SD/PSGE staff and, to the extent necessary, outside expertise procured through existing centrally-funded environment projects, will review and approve the proposals submitted. M/OP will issue the cooperative agreements, which will serve as both authorizing and obligating documents.

If necessary, design grants will be issued to finance the full elaboration of the field activities. The design grant would permit the applicant to more fully design and elaborate the major field activities to be financed by CARPE. In cases where fully elaborated designs already exist, the issuance of the cooperative agreements could be done immediately, without the issuance of design grants. The applicants may be required to provide, in cash or kind, 20 percent of the costs of the activity being funded under the cooperative agreement.

#### **b. OYB Transfer to the Conservation of Biological Diversity Project**

The OYB Transfer from CARPE to the Global Bureau's Conservation of Biological Diversity (CBD) Project (936-5554) will be used to provide funding to the Biodiversity Support Program (BSP). With this funding, the BSP consortium, a consortium comprised of the World Wildlife Fund, the Nature Conservancy, and the World Resources Institute, will implement a grants program and provide overall coordination of CARPE. This will include the recruitment of a field-based Congo Basin Environmental Specialist (4.5 person-years of effort). The funding provided will be used by BSP to:

- Competitively award Grants;
- Manage the Grants Program;
- Implement the peer review process;
- Monitor the Grants
- Coordinate activities with the USAID-managed cooperative agreements;
- Provide technical support to field grants and the USAID-managed cooperative agreements;
- Provide short-term training and workshops;
- Carry out analytical studies; and
- Disseminate documents and information.

Upon receipt of the OYB transfer, the BSP Project Manager in the Global Bureau's Environment Center (G/ENV/ENR) will invite the BSP Consortium to submit a workplan for implementing this component of CARPE. AFR/SD/PSGE will assist G/ENV/ENR in preparing this invitation and reviewing the workplan received. Upon acceptance of the workplan, the CBD Project Officer at G/ENR will prepare the required PIO/T and the CA amendment (both the funding for the grants and the funding for the management of the Grants Program and other assistance will be covered by the same CA amendment). Discussions with G/ENV/ENR staff have raised several issues that will have to be dealt with during this process, including: (1) the need to raise the ceiling for the BSP Cooperative Agreement; (2) the need to increase the LOP funding authorization for the CBD Project; and the fact that the PACD for the CBD Project is 9/30/98 (prior to the PACD of CARPE). None of these problems is seen as major. With respect to the CBD issue, should the Environment Center not extend the CBD Project, a direct Cooperative Agreement would have to be awarded to complete CARPE activities.

Under its Cooperative Agreement, the BSP Consortium will design and implement a program to make grants for applied research and to implement sustainable field interventions in environmentally threatened areas. Based on a peer review process, these grants will be open

to individuals and groups (e.g. university researchers, local NGOs, and PVOs) and will permit timely response to targets of opportunity as they arise. The grants should include a capacity-building component and be focused on project objectives.

The BSP Consortium will nominate independent experts to serve on a peer review panel to review grant proposals. The USAID project officer or a designate will be a member of the peer review panel. The Grantee Contribution for the Grant Management activities will be governed by the requirements of the original BSP Cooperative Agreement. Grantees who receive funding through the Grants Program may be required to contribute (in cash or in kind) 20 percent of the costs of the activity funded under the grant.

**c. OYB transfer to the Forest Resources Management II (FRM II) Project**

AFR/SD/PSGE will make an OYB Transfer to the Global Bureau's Forest Resources Management II (FRM II) Project. Upon receipt of the OYB transfer, the Project Manager in the Global Bureau (G/ENR) will amend the RSSA with the USDA Forest Service/International Forestry for the Forestry Support Program to procure FSP technical support, training support, and to carry out analytical studies.

**d. Consultative Group Cooperative Agreement**

AFR/SD/PSGE will provide an OYB Transfer from CARPE to the Global Bureau Environmental Planning and Management Project (936-5562). With these funds, G/ENV/ENR would amend the cooperative agreement with the World Resources Institute (WRI), a non-profit institution, to provide expert advisory services through:

- The Policy Consultative Group on Natural Resources Management

WRI established this consultative group under the predecessor Environmental Planning and Management (EPM) Project (936-5517). With AFR/SD/PSGE assistance, the G/ENV/ENR project manager will outline CARPE's needs in an invitation to WRI to submit a proposal. WRI's proposal should identify specific CARPE-related activities that will be carried out by the consultative groups over the life of the project, and present a detailed budget for this activity. AFR/SD/PSGE and G/ENV/ENR will review the proposal received and, upon its acceptance, prepare the PIC/T. The G/ENR project officer, with AFR/SD/PSGE assistance, would then prepare the CA amendment.

**e. RSSA to the NASA/Goddard Space Flight Center**

The Global Bureau's Conservation of Biological Diversity Project (CBD, 936-5554) will execute a RSSA with NASA/Goddard to procure their services in remote sensing and geographic information systems. AFR/SD/PSGE would assist the CBD project manager in preparing the work statements for the RSSA.

#### **f. Multi-donor Secretariat/NESDA**

AFR/SD/PSGE will issue a Letter Grant to the World Bank for support to the Multi-donor Secretariat (MDS). The MDS will then issue a grant to the Network for the Environment and Sustainable Development in Africa (NESDA).

#### **g. PVO/NGO NRMS Cooperative Agreement**

Under CARPE, AFR/SD/PSGE will provide an OYB Transfer to G/ENV/ENR's Conservation of Biological Diversity Project (CBD, 936-5554). The program of the PVO/NGO NRMS Consortium (World Learning, CARE and the World Wildlife Fund) is currently funded under the Policy, Analysis, Research and Technical support (PARTS) Project. In order to expand their activities in the Congo Basin, G/ENV/ENR will enter into a cooperative agreement with the PVO/NGO NRMS consortium. This cooperative agreement will be awarded to the PVO/NGO NRMS consortium based on predominant capability. G/ENV/ENR, with AFR/SD/PSGE support, will outline CARPE's needs in an invitation to the PVO/NGO NRMS Consortium to submit a proposal. The proposal submitted would identify specific CARPE-related activities to be carried out and present a detailed budget for these activities. G/ENV/ENR and AFR/SD/PSGE will review the proposal received and, upon its acceptance, award the Cooperative Agreement.

#### **h. USDA/RSSA Project Manager**

USAID will enter into a RSSA Agreement with USDA/FAS/ICD to procure the services of a project manager for 4.5 person-years.

#### **i. Evaluation and Audit**

AFR/SD/PSGE will prepare the PIO/Ts required during project implementation for evaluation and audit services. AFR/SD/PSGE staff will also arrange for the evaluation team and be the audience for its report. A mid-term evaluation is tentatively scheduled for March 1997, and the final evaluation for March 2000.

### **2. Authorized Source/Origin**

Since Geographic Code 935 (special free world countries) is authorized for procurement under the Development Fund for Africa, no source/origin waivers will be required. Nevertheless, in accordance with USAID policy, procurement from the United States (Geographic Code 000) will be maximized to the extent feasible.

### **3. U.S. Small and Disadvantaged Entities**

CARPE contributions to Agency compliance with Public Law 102-391 (aka the Gray Amendment) will be provided through both primary and secondary assistance instruments. In

accordance with Agency and Africa Bureau policy and procedures, the project will make every possible effort to maximize the use of Historically-Black Colleges and Universities (HBCUs), business concerns owned and controlled by socially and economically disadvantaged individuals, and PVOs controlled by individuals who are socially and economically disadvantaged. The Law provides that the term "socially and economically disadvantaged individuals" has the same meaning as given in Section 8(d) of the Small Business Act, except that the term includes women.

Few contract actions are planned under this project. Assistance mechanisms will primarily be grants and cooperative agreements to PVO/NGOs and International Organizations, and RSSAs/PASAs to other Federal agencies.

In addition, for all grants and cooperative agreements, mandatory amendments will require positive efforts by grantees to utilize U.S. small businesses and minority owned businesses as sources of supplies and services. Such efforts should allow these sources the maximum feasible opportunity to compete for contracts utilizing USAID funds. Grantees shall to the maximum extent possible provide detailed information to the USAID Office of Small and Disadvantaged Business Utilization prior to placing any order or contract in excess of \$25,000.

The other federal agencies expected to be participants in the CARPE project will operate under the Federal Acquisitions Regulations and will be required to report to USAID on any sub-contracts or agreements to any small or disadvantaged institutions.

## **C. Project Management**

### **1. Washington, DC Coordination**

#### **a. The Role of the Africa Bureau**

Since this project will be implemented with DFA funds, the Africa Bureau will be responsible for its management. The USDH Project Officer will be located in the Africa Bureau's Office of Sustainable Development/Productive Sector Growth and Environment (AFR/SD/PSGE). The Unit Leader for the Natural Resources Management Unit of AFR/SD/PSGE as CARPE Project Officer will be responsible for the strategic management of the project and will assure that project resources are used according to project objectives. Level of effort is expected to be 20% FTE. Contract management will be exercised by the USAID/W Office of Procurement (M/OP/A/AOT). Financial management for CARPE will be provided by the Office of Financial Management (M/FM).

The USDH Project Officer will supervise a USDA/RSSA staff member who will serve as Project Manager and will be responsible for day-to-day oversight of the project. The responsibilities of the Project Officer will include:

- Administrative review and approval of financial transactions;

- Project representation within USAID and to external stakeholders; and
- Co-supervision, with USDA/FAS/ICD, of the Project Manager.

Project Manager responsibilities will include:

- Preparing, together with the Office of Procurement, all PIO/Ts, statements of work, and other documentation needed for the issuance of cooperative agreements, grants and OYB transfers, and preparing any project amendments that are required during the life of the project;
- Working with the Project Officers in the G Bureau that are responsible for the Conservation of Biological Diversity, the Environmental Planning and Management and Forestry Resources Management II Projects to ensure that CARPE resources channeled through those projects are used effectively and as intended;
- Ensuring that reports and materials prepared under the project are of high quality, conform to the agreed upon format and content, and are completed in a timely manner;
- Identifying analytical priorities and orchestrating the delivery of technical support and training services to field activities;
- Developing and implementing effective dissemination strategies to increase the utilization of findings and results;
- Promoting collaboration among the partners implementing the project and resolving any conflicts that may arise;
- Monitoring project implementation and reporting on results/problems to Bureau Management; and
- Working closely with the BSP Congo Basin Environmental Advisor to identify opportunities and take proactive steps aimed at expanding and more effectively integrating CARPE activities.
- Donor coordination and representation of CARPE to senior government and donor representatives in central Africa and Europe.

The Project Officer and the Project Manager will work as a team to coordinate the proposed project. They will collaborate closely with the AFR/WA Project Officer responsible for the management of the Africa Bureau Small Country Program and the G Bureau Project Officers responsible for collaborating projects.

## **b. The Role of the G Bureau**

The Bureau for Global Programs, Field Support and Research (G) was created under the recent USAID reorganization. Its responsibilities include:

- Designing and managing field support projects that are consistent with the expressed needs of regional bureaus and field missions;
- Designing and managing core technical support services projects for Agency-wide access; and
- Maintaining the capability to monitor and respond to global problems.

The Africa Bureau will access Global Bureau projects to support CARPE implementing through Operating Year Budget Transfers (OYB Transfers). Specifically, CARPE will initially access technical resources from the EPM, CBD and FRM II Projects. The Project Officers for these G Bureau Projects will work closely (at an anticipated level of effort of 20%) with the CARPE Project staff to ensure that these projects deliver the resources called for by CARPE in a timely manner.

## **c. The Role of the Office of West African Affairs**

The West African Affairs geographic office has leadership responsibility within AID/W for planning, coordinating and monitoring all USAID activities in the countries in this area. The office is the locus for all country-related matters, including strategy, project, non-project and food aid development, monitoring, implementation and review; personnel and budgeting; external relations and information; and donor coordination.

The Africa Bureau Office of West African Affairs Small Country Program Officer is responsible for managing the small country bilateral program including the Congo Forest Conservation Project (679-0008). This \$3.3 million five year grant to WCS has a planned PACD of September 1996. Appropriate activities in the area after that date are intended to be included in the WCS Cooperative Agreement proposal to CARPE. The responsibilities of the Program Officer include:

- Management of the Congo Forest Conservation project to PACD;
- Maintaining relationships on country/regional matters with foreign Embassy representatives, other donors and international organizations, other Bureaus of AID, the State Department and other U.S. Government agencies;
- Fostering a closer and more effective relationship between Missions and the U.S. private sector. Promoting investment opportunities with U.S. and host country commercial institutions;

- Incorporation of CARPE accomplishments and lessons learned into regional and agency reporting documentation; and
- Communication to Project Officer and Project Manager of other USAID activities and other relevant information from the region potentially impacting on CARPE results achievement.

## **2. Congo Basin Field Coordination**

### **a. The Role of the Biodiversity Support Program**

CARPE will establish a field office, based in Libreville, which would serve as the focus of the BSP-managed grants program and the base for the position of Congo Basin Environmental Specialist. This office will serve as the headquarters for the BSP grants program, enabling maximum contact with grantees and providing the necessary oversight and monitoring. It will also serve as a focal point for interaction between different components of the CARPE program, through the communication, coordination, and problem-solving role of the Environmental Specialist. BSP responsibilities will include:

- Analytic synthesis of experience gained from component for Testing and Demonstration of Conservation Practices;
- Coordination of annual coordination workshops and dissemination of workshop results;
- Networking and communication among project participant and stakeholders; and
- Support to donor coordination and representation of CARPE to senior government and donor representatives in central Africa and Europe.

### **b. The Role of U.S. Embassies in the Congo Basin Countries**

U.S. Embassies in Congo Basin countries have expressed an interest in environmental conservation. In the absence of bilateral USAID missions, however, the implementation of CARPE will place an unusual management burden upon local embassy staff. While embassies have successfully managed USAID-funded activities under the Small Country Program, the scale of activities implicit in CARPE may be much greater. Key functions that the embassies may be called upon to perform include:

- Representation of CARPE policy concerns with senior government and donor officials;
- Facilitating access to key government officials for PVOs and other CARPE project partners;

- Serving as a locus for international communications (i.e., cables, letters, faxes) as well as country clearance;
- Conflict resolution.

Under the Small Country Program, development assistance is coordinated on USAID's behalf by a designated State Department 'AID Liaison Officer' (ALO). The ALO will play a monitoring role in CARPE. The ALO will host regular coordination meetings to discuss project progress and problems. Topics to be discussed might include embassy support, general policies, relations with the host government and local groups, donor coordination, and visitors. The ALO will receive and review project reports and provide substantive feedback to CARPE field personnel, as well as maintain close contact with USAID/W staff involved in managing CARPE.

There will be no bilateral obligating agreements between USAID and any of the host countries in which CARPE activities will be carried out. WWF and WCS activities will operate under existing bilateral agreements between those PVOs and the governments in countries in which they have ongoing programs. Some non-WWF/WCS activities may be covered under these agreements, or under bilateral agreements between U.S. embassies and host governments.

#### **c. The role of Lead Conservation Organizations (WWF and WCS)**

CARPE will strengthen regional coordination by the two conservation PVOs most active in the region, the World Wildlife Fund/World Wide Fund for Nature and the NYZG Wildlife Conservation Society in addition to supporting some of their existing activities. Key functions which these organizations will be called upon to provide include:

- Testing and demonstration of approaches to conservation;
- PVO/NGO capacity building and networking;
- Analysis and evaluation of lessons learned;
- Studies and research linked to improved understanding of the Congo Basin;
- Coordination and implementation of training and skill building; and
- Mentoring and establishment of partnerships and networks.

#### **d. The role of REDSO/WCA**

The USAID Regional Economic Development Support Services Office based in Abidjan, Cote d'Ivoire provides technical and administrative support services to USAID missions and activity in west and central Africa. REDSO/WCA roles under CARPE will include;

- Communications link and support services to the USAID/W management team;
- Information source on Francophone west Africa conditions, policies and experience of relevance to the CARPE project; and
- Technical advisor in environmental impacts from CARPE interventions.

#### **D. Implementation Timetable**

1995

- Sept. Project Authorized  
Prepare PIO/T, including work statement, for RSSA for P  
Execute OYB transfer of CARPE funds to G Bureau proje  
Recruit RSSA Project Manager
- October RSSA Project Manager begins work  
Request proposals from CARPE project partners for their :  
Prepare and execute Invitation for Proposals from WWF, W  
for cooperative agreements  
Workshop of potential project participants and stakeholders  
Receive and review proposals from CARPE project partn  
their respective components  
Prepare and execute Invitation for Proposals from NASA/Gc  
BSP, WRI and RSSA trip to central Africa to establish  
workshop
- Nov. BSP Field Office and staff established in Libreville  
Development of Strategic Objective and Results Teams  
Receive, review and approve WWF, WCS and PVO/NC  
execute cooperative agreements.  
Receive, review and approve NASA/Goddard Space Flight Center proposal and execute  
or amend RSSA.

1996

- January Donor coordination workshop (Libreville)
- July Coordination workshop for Project partners and stakeholders (Libreville)
- 1997
- March Collaborative mid-term evaluation
- July Coordination workshop for Project partners and stakeholders (Bangui)
- 1998
- July Coordination workshop for Project partners and stakeholders (tbd)
- 1999
- July Phase II Design workshop for Project partners and stakeholders (tbd)
- 2000
- March Phase I final evaluation
- Sept. Phase I PACD

## **VI. SUMMARY OF ANALYSES**

### **A. Technical Analyses**

#### **1. Environmental Situation**

The CAR is a landlocked country in the heart of Africa. It's land area is 623,000 km<sup>2</sup> and its population was estimated at 3 million in 1990. The annual growth rate is 2.3% and the population density is 4.2 inhabitants per square kilometer. There are two main types of forest and woodland resources in CAR: 1) dense tropical forest located in the southwest and north of Bangassou, together with gallery forests along the main rivers and bottomlands, and 2) woodlands and disseminated trees in the savanna zone, ranging from wooded savanna over most of the country to shrub and bush savanna in the northernmost region.

Critical sites in CAR include lowland forests in the extreme southwest of the country, particularly at Dzanga-Sangha, and the Mbaere-Bodingue-Ngoto Forest, and in the south the lowland forests around Bangassou. Isolated patches of forest in the north include Kotto, Kaga-Bandoro, Nana and a large dry forest south of Oudda. Savanna reserves in the north of the country are also of great importance for large mammals. These areas include Bamingui-Bangoran National Park, and surrounding reserves and the Manovo-Gounda-St. Floris National Park. The hills of the northeast, in particular the Massif des Bongos and the Massif du Dar Chala, are important for plant conservation.

The dense forest of CAR is diminishing. Climatic variations explain some of the recession of the forest, however, man is undoubtedly an important factor through the practice of slash and burn agriculture, associated bush and forest fires, animal husbandry and gathering of firewood for a rapidly growing urban population. The forests and savannas of CAR are home to a rich diversity of native fauna and flora. Animal resources include numerous lowland gorillas, forest elephants, bongos, forest buffalos, and chimpanzees.

Firewood collection as well as slash and burn cultivation are the two main causes of deforestation in CAR. Construction of new roads penetrating into forest zones plays a major role in forest destruction, since inevitably new settlements will occur along the roads. Due to a strong increase in demand for wild game, commercial hunting is expanding rapidly with very little effective control by the administration, thus, there is an ever-increasing risk of over exploitation. In addition, poaching has been particularly destructive in the savanna zone of CAR in recent years.

Despite the substantial areas designated as national parks or reserves (about 61,000 km<sup>2</sup> or close to 10% of the total land area of CAR), very little effective protection has been exercised so far, mainly as a result of lack of adequate staff and operating resources. In addition, lowland rainforest is insufficiently represented in the country's protected area system. Additional threats to the environment and biodiversity in CAR include the risk of rinderpest to animal populations,

and the possibility of submersion of forest areas as a result of damming the Oubangui River at Mobaye.

The Congo is located along the equator in west central Africa. The country covers 342,000 km<sup>2</sup> and is inhabited by roughly two million people. The largest ethnic groups are BaKongo, BaTeke, M'Bochi and Sangha. Over 60% of Congolese live in urban settings, the remaining 40% are scattered in small villages primarily in the central and southern portions of the country. Northern Congo is sparsely populated with settlements usually along rivers.

About 60% of the Congo is covered by tropical moist forests. Extensive exploitation of tropical wood has occurred since the 1940s. The largest remaining block of intact tropical rain forest in Congo is in the north. With the exception of the vast inundated forest, the rest of the northern region has been divided into forestry management units in anticipation of foreign investment. Transportation problems, logistics and market forces have delayed logging northern forests.

Of Gabon's 267,000 square kilometers of land, 75-80% is still forested. Much of the richness of Gabon has been preserved because of its extensive petroleum wealth. Gabon diverged upon a petroleum-based economy starting in the early 1970s. Unfortunately, the collapse in petroleum prices in the mid 1980s, coupled with population growth has made Gabon vulnerable to deforestation pressures. Both the timber and mining sectors are being exploited now to replace lost revenues.

Cameroon has a high proportion of arable land, rich and extensive forests and important energy sources. Increased logging could damage or destroy most of the forest areas by the early 21st century unless fundamental changes are made in land use planning, forest management and reforestation practices. The prospect of large scale release of carbon is arguably more imminent in Cameroon than in any other country of central Africa. Although estimates vary, roughly 16 million hectares, or one-third of Cameroon's territory is covered by closed tropical forests.

Equatorial Guinea consists of five islands and the much larger mainland area totaling 28,051 square kilometers. The capital is located on the 2,000 square kilometer island of Bioko, 20 miles off the coast of central Cameroon in the Gulf of Guinea. The mainland province of Rio Muni is 26,000 square kilometers. The major natural resource of E.G. is timber. Most of the productive forest is located in the province of Rio Muni. Six timber species (okoume, akoga, elondo, ayus, akom and calabo) account for 80% of export production. In 1988 two concessionaires were granted permission to negotiate with individual cocoa plantation owners to fell specific trees on their property, however, traditionally, trees have not been logged commercially on Bioko.

Zaire possesses between 70-100 million hectares of closed tropical forest. The upper estimate is roughly half of the continent's total tropical forest. The country also contains large expanses of savanna and savanna woodland, as well as remnants of gallery forest. Zaire's 2.3 million square kilometers contain the world's largest river basin network and its second largest

remaining tropical forest. About 30% of the forest in the central basin is seasonally flooded or in swamp forests. Three thousand of Zaire's estimated 10,000 plant species are endemic, and the eastern highlands are considered the richest bird habitat in Africa. National parks and wildlife reserves cover some 21 million hectares countrywide. The parks and reserves suffer from a lack of management and protection.

Agriculturally-linked deforestation occurs in all four regions of Zaire. The Central Basin of the Zaire River, which is marked by high rainfall and supports a closed canopy rain forest, is generally considered unsuitable for annual cultivation. The Bantus and Pygmies clear small forest plots here. Plantations of palm oil, coffee and cocoa are found in this region. The transitional forest zone to the north and south of the central basin has generally fertile soils, but reduced fallow periods are leading to declining yields. The tropical montane region of the east has fertile soils which are subject to erosion. A wide variety of food and plantation crops are grown here and because of dense populations problems associated with short fallows and degraded forests are prevalent here. The gallery forest and savanna of southern Zaire has sandy, acidic soils and the area is a net importer of food.

## **2. Economic Situation**

Agriculture, including livestock and forestry is the mainstay of the economy of the CAR, accounting for about 42% of the GDP and occupying about 80% of the population. Mining, manufacturing and utilities (15%) construction (3%) and services (40%) account for the balance of the GDP. CAR is basically self-sufficient in major food crops which represent about one third of agriculture value-added; livestock accounts for another third and the balance consists of cash crops (5%). Cash crops include oil palm, sugarcane and the export crops, coffee, cotton and tobacco. CARs export crops and timber account for about half of the total official exports.

While natural conditions in CAR are favorable for agriculture and animal husbandry, its performance in the agricultural sector is poor considering its potential. The knowledge of forest resources in CAR is rather poor since no comprehensive national forest inventory has ever been done (as of 1990). The area under dense tropical forest is estimated at 3.5 million ha or 5.5% of the total country. The dense, humid, semi-deciduous forest of southwest CAR has a high density of commercially valuable redwoods such as Sapelli and Sipo, as well as a high number of white woods including Ayous and Limba. The forest industry in CAR ranks third after diamonds and coffee as a main source of foreign exchange. The forestry sector also contributes significantly to government revenues in the form of fees and taxes. In recent years it has provided employment to 2,500-4,000 people. Forest legislation ensures a high degree of local processing for forest products, which often exceeds 70%.

Gross production of logs has declined since the early 1980's as a result of a reduced demand for tropical African woods, an increase in production costs, and low investment in maintenance of equipment. Forest exploitation is selective and it is estimated that only about 10-15% of the existing dense forest has been subject to logging. The forest and woodlands of CAR supply over 90% of the energy requirement of CAR's households and are an essential part of

the crop production system. Wild game is an important source of protein throughout the country in both forest and savanna zones. The forests also provide fruits and other wild foods and medicinal plants. Organized hunting and observation tourism are quite limited. Purchase of permits and collection of taxes for hunting bring in a revenue of approximately US\$500,000 annually.

A forest concession system began in CAR at the turn of the 20th century. Concessionaires were given large blocks of forest for exploitation. They were required to plant large plantations of oil palms and other cash crops, but they also had the right to exploit almost any natural product. While concessionaires were required to work amicably with the local people, when this was unsuccessful they introduced forced labor.

During the late 60's and early 70's tens of logging companies were set up along the Sangha River to exploit the rich stands of Sapeli and Sipo. While mechanized this activity was labor intensive and a new labor force, was imported into the area. Since the 1960's nine logging companies have been working in the Dzangha Sangha region. One particular concession, Slovenia Bois, established in Bayanga in 1972, had a labor force of over 600 people. In the 1970's early 1980's most of these companies were highly profitable because of high wood prices. Since the mid-1980's most of these companies have experience bankruptcy at least once, creating a very unstable socio-economic atmosphere in the region. Transportation problems make logging more costly in CAR than in Cameroon or Gabon. Gross production by the logging industry reached a maximum of around 400,000 m<sup>3</sup> in the early 1970s, which is well below the sustainable yield, roughly estimated at about 1 million m<sup>3</sup> per year. In 1988 gross log production totalled only 152,000 m<sup>3</sup>.

One-third of the Congo's population is engaged in subsistence farming, although less than 2% of the land is cultivated. Half of the populace is active in the monetized economic sector, mostly involved in commerce as Congo is highly dependent on imported goods. Agricultural products include cocoa, beans, sugarcane, bananas, peanuts, coffee, tobacco and palm oil. Light industry includes wood processing, soap, sugar, palm oil and beer production, cement, textiles, and cigarette manufacturing. Major export products include petroleum, tropical wood, minerals and sugar.

Until 1972 logging was the principal export, but oil exports have surpassed logging. In 1985 timber amounted to only 1.5% of the national product. The centrally planned state has a workforce of more than 80,000 public workers. Structural adjustment efforts will necessitate a substantial reduction in government size. When this occurs, there is a strong risk that responsibilities will be moved from the public sector to the NGO community. Thus, training and networking needs for NGOs are extensive.

In 1991 Gabon's per capita income was higher than that of the five other countries in the Zaire River Basin combined. As a byproduct of the petroleum-based economy of the 70's and 80's, rural dwellers abandoned traditional sedentary cultivation for better paying jobs in the oil industry, the expanding public sector, and the construction industry. Gabon has three traditional

export crops, cocoa, coffee and sugar. It is in a stronger position to manage resources for sustainability and greater domestic value-added processing than many of its neighbors.

In the twelve years following independence in 1960, commercial timber extraction dominated the economy accounting for 75% of export revenues, most of which (85%) came from the single species okoume. In 1993 oil accounted for an estimated 81% of exports. Oil export are expected to yield modest GDP growth in 1995.

Cameroon is relatively prosperous with one of the highest levels of per-capita income in Sub-Saharan Africa. A robust petroleum industry began in the 1970's, however, the 1986 oil price decline has led government planners to look to the timber industry in order to offset oil revenue shortfalls. The Sixth Plan (1986-1991), includes a Tropical Forestry Action Plan calling for investment of \$136 million in the forestry sector over the next five years. Increased timber exports would open up new areas for commercial exploitation in the southern part of the country. A total of 58 different projects in forestry, land use, and forest-based industry constitute TFAP's ambitious plans to double the annual cut of roundwood to 4 million cubic meters by the year 2,000, and 5 million cubic meters by 2010.

In addition to crude oil, the prices of coffee and cocoa have also plummeted in the world market. The demand for coffee dropped as consumer tastes shifted away from robusta in favor of the milder arabica beans. In addition, Asian and South American suppliers of both cocoa and coffee have increased production. In response to the economic decline the World Bank approved a \$150 million structural adjustment loan, on condition that the Cameroon government restructure state enterprises and parastatals, liquidate a number of government programs, and privatize many institutions. Lay-offs and wage cuts have been implemented as part of the reform, but have brought civil unrest and political turmoil.

### 3. Social/Political Situation

In mid-1990 the CAR joined the growing number of francophone African states where people were taking to the streets to demand reform. A wide range of individuals and opposition politicians formed a committee to demand a national conference to formulate democratic reforms. President Kolingba repeatedly rejected demands for a national conference with the power to override the president. Meanwhile the government was largely paralysed causing key economic decision to be put on hold, the loss of two academic years, and holdbacks by the IMF, World Bank and France for major aid funding. Elections were finally held in October 1992. President Kolingba annulled the vote. In June 1993 the new cooperation minister in France flew to Bangui and persuaded the president to bring forward the polls, which he had just postponed again to October. He appointed a special envoy with the task of monitoring the election. On September 19, Ange-Felix Patasse, an agricultural specialist, emerged victorious as the newly elected president.

The EIU outlook for CAR for 4th quarter 1994 says that "Moves by Mr. Patasse against associates of his predecessor have created a tense atmosphere. France has maintained its tough

position over adjustment monies and the IMF is disappointed over high wage bills and weak revenue. Normal school exams have gone ahead for the first time in four years. Privatisation is on the agenda."

In the Congo a new multi-party constitution was adopted by referendum in March 1992. Pascal Lissouba was elected president on August 16, 1992. During the course of 1993 the country rapidly became ungovernable with mass protests by Kolelas supporters (competitor with Lissouba during the presidential election). Mediation by France and the Gabonese president Omar Bongo, led to a re-run election for parliament in 1993. Supporters of President Lissouba maintained a slim majority in parliament. The security situation in Brazzaville deteriorated. Armed militias set up by supporters of Mr. Kolelas led to a number of shooting incidents with a death toll of 200 by the start of 1994.

The EIU Congo country report for the 4th quarter 1994 says "Reconciliation has taken place slowly. Decentralization plans have succeeded in seducing the opposition, with Bernard Kolelas and Jean-Pierre Thystere-Tchikaya, becoming mayors of Brazzaville and Pointe Noire respectively. Congo has regained eligibility for World Bank and ADB money and has received more French aid. A new local money market has taken shape, but BBC bank has closed. Privatisation and oil laws have been passed."

Gabon has remained fairly politically stable since the 1960s. Because President Bongo belongs to one of the small indigenous ethnic groups of southeastern Gabon, this has helped to counterbalance the numerically predominant northern Fang. The prosperity in Gabon since the 1970s has also helped to maintain political stability. Presidential elections were held in December 1993. The elections were tense, and there was a delay in announcing the results which led to widespread unrest in Libreville. This was exacerbated by the 50% devaluation of the CFA franc on January 12, 1994. President Bongo appointed Paulin Obame Nguema as the new premier. Mr. Nguema has formed a transitional government. The Paris accords have pledged to prepare a level constitutional and electoral playing field for the opposition in municipal and legislative polls, but there are serious doubts as to how far the PDG will respect the provisions of the accords. The IMF has given fresh backing for the government's economic program and detected progress on parastatal reform. Human rights abuses continue and include security forces mistreatment of illegal aliens, detainees, and prisoners, and legal discrimination and societal violence against women.

In early 1990 the wave of social agitation for multi-party politics swept through Cameroon. Attempts to form political parties were initially repressed, however after violence in pro-democracy demonstrations in May, a law providing for the formation of political parties was passed in December. Legislative elections took place in March 1992 at which time there were 48 recognized parties, only three of which showed strength in the election. Presidential elections were held in October 1992. Mr. Biya claimed a narrow victory against Mr. John Fru Ndi of the SDF and Mr. Maigari, however Mr. Fru Ndi as well as some foreign observers claimed ballot rigging. Currently the political situation is tense. The government continues to make arbitrary arrests of political opponents and members of the independent press.

The EIU Cameroon outlook for 4th quarter 1994, says "The president has appeared consistently out of touch. The dispute with Nigeria over the Bakassi peninsula has continued. The IMF stand-by credit agreed to in March remains suspended although the World Bank has granted fresh loans. Civil service redundancies and privatisations have caused controversy. Anglophone groups are still unhappy with the government. There has been further turmoil in the banking sector. Manufacturing exports have reacted well to the devaluation, but trade within the Franc Zone has been disappointing.

In January 1994, General Mobutu of Zaire dismissed both the Birindwa cabinet and the Tshisekedi government. Joseph Kengo was elected as the new prime minister in June 1994, winning a 72% majority in the transitional parliament.

The Kengo government has been trying to re-establish the authority of the state, to gain control over the military and over monetary policy and to break Zaire's diplomatic isolation. It has only been successful in the last point so far. The crisis induced by inflow of more than a million refugees since July has taken dramatic proportions, with abuses by Zairean and Rwandan troops compounding miserable conditions. The government has announced many drastic economic and financial measures but it is unclear how they will be implemented.

The climate of political reform is strongly affecting Zaire. Press freedom is greater than ever and President Mobutu is under growing pressure to make significant concessions to the political opposition.

#### **4. Institutional Structure and Environmental Policy**

While policies and legislation regulating forest use may be adequate, in most cases, application is nearly absent and coordination between Ministries is poor. Even worse, regional cooperation in protected area management is nearly non-existent, leading to inappropriate policies with adverse cross-border impacts. (see Grut, et. al. Forest Pricing and Concession Policies: Managing the High Forests of West and Central Africa; World Bank Tech. Paper # 143, 1991.)

#### **5. Ongoing Environmental Initiatives**

More than seventy five protected areas with varying degrees of management and legal protection have been created in the Congo Basin. Classified as National Parks, Game Reserves or Forest Reserves these management units reside primarily on paper with very limited active stewardship. Little consideration has been given to integrating the protected area "systems" with surrounding development schemes and, thus, they often work at cross purposes.

USAID has been a major donor on GCC and biodiversity in the Congo Basin countries. No other donor involved with countries in this region has regional environmental interests, or a commitment to GCC and biodiversity as global issues, except for the multi-donor Global Environmental Facility (GEF) and the European ECOFAC program. The GEF, however, has been unable to put together a comprehensive regional program. CARPE, with its emphasis on

regional strategies and capacity building, is expected to leverage GEF and other funds, which otherwise would not be available.

Among the major multi-lateral and bilateral donor-funded environmental projects in Cameroon, the European ECOFAC program is supporting the management of the Dja Wildlife Reserve, while the Canadians are providing technical assistance in forestry to ONADEF.

World Wildlife Fund has a country office, implementing projects on/in:

- elephant conservation with US Fish and Wildlife Service funding. (WWF project sheet: Regional Forest Conservation in Lac Lobeke, Oct. 1993)
- Analysis of sustainable logging. (WWF topic sheet: Focus on Forests, Sept 1994)
- Rhino conservation in northern Cameroon. (WWF project sheet: Program for the Protection of the Western Black Rhinoceros, Oct. 1993. WWF 1993 Annual Report, p.15. WWF topic sheet: Sustaining Protected Areas, Habitats, and Species, Apr. 1994)
- Mount Kilum Park Management.
- Conservation & environmental education with the Mount Kupe Project in collaboration with Birdlife International (UK).
- Reserve management in SE Cameroon (with GEF funding)
- Protection of Dja Reserve (Dutch funding)
- Protection of Mangroves, Rio del Ray (GEF and GTZ funding)
- Park management in Korup National Park (ODA and EC funding)

Wildlife Conservation Society is carrying out biodiversity research in Korup National Park. WCS completed a biological and social survey in Southeastern Cameroon with BSP funding. The BSP Project also supported a remote sensing efforts with the government of Cameroon (ONADEF).

The Smithsonian is carrying out a Botanical survey, while the British government in collaboration with GTZ is managing the Limbe/Mt. Cameroon Project with offices in Limbe and Buea. The project includes botanical collections from Mt. Cameroon, an educational program and a new (1994) conservation and development program.

In CAR, WWF has developed and submitted a \$1.3 million project for the Bangassou area to the GEF. This would make Bangassou the second largest protected area in CAR. Support for this project will also come from the US Fish and Wildlife Service. A proposal from WWF was submitted to USAID for a Tri-National Project. The area would include protected areas in Congo, Cameroon and CAR. These are the Dzanga Sangha (CAR), La Lobeke (Cameroon) and Nouabel-Ndoki (Congo). Current funding sources for these areas include GEF, GTZ, WWF, WCS, USAID and US Forest Service.

The Foundation Centrafricaine pour la Sauvegarde des Ressources Naturelles (FOCSARENA) was formed by the government of CAR to promote rational use of forest resources and conservation of plants and animals. Activities are to include promotion of

cookstoves and anti-poaching controls. As of 1993, the government was still seeking funding for this from the international donor community.

The European Community (EC) ECOFAC program has been working in CAR since April 1993, and would like to work with local NGOs. Their work includes the creation of watershed village association management units. Results of the effectiveness in organizing these units is not yet known.

CARE was in the country in the 1970s, but left in 1982. AFRICARE has a representative but no projects at present. The World Bank is funding a Volunteers in Technical Assistance (VITA) program to implement a small revolving loan project with the intention being that this project will evolve into a local NGO. UNDP is involved in a pilot project working with local NGOs in NRM. Two UN volunteers are assigned to local NGOs working in environmental education. There is also a UN fund for NGO micro-projects. GEF funds are also available for an NGO project, but sponsors have not found a viable project.

ECOFAC is implementing the N'gotto Mbaere Bodingue Project which covers 130,000 contiguous hectares in the area southwest of Bangui, on the road to Bayanga and the Dzanga-Sangha Reserve. ECOFAC is a regional project covering central Africa (Cameroon, Congo, CAR, Equatorial Guinea, Gabon, Sao Tome and Zaire (currently suspended) that seeks to promote conservation and rational utilization of natural resources. It is financed by the EU and the CAR component is in the first of its two 3-year implementation phases.

The project zone involves 60,000 ha of managed forest, 45,000 ha of protected forest in the Ngotto area, and 25,000 ha of farm and community land to which rural development activities are being extended. Technical assistance to the project is provided by the firm AGRER de Bruxelles. The World Bank is conducting a study of ecological impacts of the Route du Quatrieme Parallel, connecting Bangui with southern Cameroon.

The Missouri Botanical Garden is conducting a botanical survey and conservation efforts in southwestern rainforests. In 1990 the World Bank proposed a development credit for CAR for a 4-year natural resource management project. The project includes strengthening institutional capacity in the Ministry of Waters, Forests, Wildlife, Fisheries and Tourism (MWFCT), inventory of dense forest resources in the southwest of CAR, execution of a pilot agro-forestry/land-management program in forest zones around Bangui and support to on-going protection and management of dense forest reserves. The project is in its fourth year and may have a second four-year phase.

In 1993 the UNDP Global Environment Facility (GEF) proposed the project titled, Conservation and Sustainable Management of the Dense Forest of Bangassou. The objective of the project is the conservation and rational management of biodiversity through the participation of the local population, training of the population in the preservation of their environment, and protection of the northern edge of the tropical rainforest. If accepted the project could begin in

late 1995. Along with the Dzanga Sangha, the Bangoussou forest forms the northern limit of the equatorial forest of the CAR.

The Peace Corps has two volunteers working in conservation education and would like to expand into environmental and NGO work.

The World Wildlife Fund has its country office in CAR and is implementing the Dzanga Sangha National Park and Reserve Project there (with USAID funding). [See Carroll, Richard "The Development, Protection, and management of the Dzanga-Sangha Dense Forest Special Reserve and the Dzanga-Ndoki National Park in southwestern Central African Republic", Jan. 1993.] The purpose of the project is the development, protection and management of the Dzanga-Sangha Dense Forest Special Reserve and the Dzanga-Ndoki National Park for the conservation of its important floristic, faunal and human components. The project emphasizes development of an infrastructure to protect, develop and manage the Dzanga-Sangha Dense Forest Special Reserve and Dzanga-Ndoki National Park for the conservation of the forests and its wildlife. Other emphasis areas include reduction of poaching within the reserve, rural development, conservation education, ecotourism, and controlled hunting. WWF has also proposed a Reserve Management Project for Bangassou in support with the USFS and GEF. WWF is working with a local NGO to complete a survey of the Bangassou Forest (US Fish and Wildlife Funding).

WCS is supporting research on elephants, gorillas, and small mammals. The Forest Action Network (FAN), which is a 9-country network of NGOs concerned with forest conservation and rural development in west and central Africa, is active in CAR. The Projet d'Aménagement de Ressources Naturelles is financed by the World Bank and executed by Poulin Theriault Inc, of Quebec, Canada. The project has five paths of action: reinforce the ministry, protect wildlife, conduct a forest inventory, practice agroforestry and manage natural resources. In 1992 they began baseline studies choosing a pilot zone, conducting a forest inventory, conducting an inventory of useful plants, conducting soil studies and mapping. Their other activities include training, informal education, nursery preparation, agroforestry, and improved cookstoves.

The Congo GEF project, called "The Congo Wildlands Protection and Management Project", centers on the renovation of selected protected areas and the establishment of new reserves to adequately protect and manage the biodiversity or species, plant and animal communities, ecosystems, and the genetic resources of Congo. The Congo GEF project will begin with planning and coordination of conservation activities at the national level and focus on three existing reserves (Conkouati, Dimonika and Lfini) and require the establishment of two new reserves (Nouabal-Nkdoki and Lake Tl-Likoula-aux Herbes). Other areas would be surveyed for later inclusion into the system of reserves.

The World Bank/GEF is implementing a Trust Fund for Conservation. Recognizing the importance of trust funds, the Bank will place a small amount of the grant into such a fund with the hope that other donors will contribute. The Leakey Foundation and Stonybrook are carrying out gorilla and chimpanzee research. The Food and Agriculture Organization has a small fish

pond and rice culture project. FEDAR, the European Fund for Development of Agriculture, is working in agriculture, road production, road rebuilding, water and sanitation.

The French Volontaires de Progres are addressing agricultural production. The Peace Corps is working with fish ponds and conservation education through the WCS project.

Wildlife Conservation Society has a country office in the Congo and is implementing the Congo Forest Conservation Project: Nouabale-N'Doke with USAID Funding. It has also proposed a Forestry Training Project with World Bank/GEF Funding. This project has an implementation schedule of 1991-1996. In addition to USAID/BSP funding, monetary support is also provided by the World Bank, GTZ, GEF, Japanese grant funding and Wildlife Conservation International. The GPRC is funding employees from the Ministry of Forest Economy (MFE) and setting aside large areas of virgin forest as national parks and forest reserves. Project objectives include the establishment of the Nouabale-Ndoki National Park (448,000 ha), the development of a park management plan, construction of a viable park infrastructure and intensive research activities linked to long-term management of the park.

Other activities to be undertaken on a national level include training of field biologists, completion of surveys and forestry assessments in other regions of the country and provision of information and advice to appropriate host-country institutions concerned with forest conservation. This will also include the initiation of a national conservation education program.

In Zaire, WCS is working in the Ituri Forest with USAID and World Bank funding and is doing a forest and gorilla survey in Eastern Zaire. WWF is also working in the Ituri Forest (management/planning/education); park management and education in the Virunga National park; protection of the white rhino in Garamba National Park; and conservation education in Kahuzi Biega national Park. Harvard University is supporting research in the Ituri Forest. Yale/Stonybrook was supporting Pygmy Chimp research. USAID is funding a remote sensing study on the evolution of the tropical forest being carried out by the University of Louvain in Belgium.

## **B. Financial and Economic Analysis**

Many of the activities proposed for the CARPE project do not lend themselves to conventional economic analysis. This includes important (but difficult to quantify) interventions such as capacity-building, technical support, policy reform, regional planning, donor coordination, research and information dissemination. The proposed CARPE budget level of approximately \$14 million over five years represents a very modest investment in relation to the magnitude of the problem.

For example, commercial logging for export markets has been identified as a major contributing factor in long-term forest loss: the region's timber exports, which stood at \$630 million in 1992, dwarf the proposed USAID intervention. From 1989 to 1992, a period of just three years, timber exports from the six countries rose by more than \$174 million, according

to FAO data. The devaluation of the CFA in early 1994 has stimulated a further increase in timber exports, according to World Bank sources.

A related issue to be considered in this context of the appropriate level of project effort concerns the absorptive capacity of institutions within the region with which CARPE will be working. While there are probably few capable of efficiently managing activities approaching the scale of the CARPE project, major responsibility for CARPE activities will be vested within U.S. organizations experienced in management of USAID funds, i.e. WWF, WCS, the Biodiversity Support Program, and so forth. Most of the other CARPE transactions, for example activities carried out by local NGOs, will be handled through the BSP grants program and will be set at levels appropriate to the task and the capacity of the respective institutions.

Despite the difficulty of conducting economic analysis of the CARPE project as a whole, conservation activities on specific field sites can be subjected to economic techniques such as opportunity cost assessment. In the case of the WWF Dzanga-Sangha project in CAR, Telesis USA Inc. has carried out an economic analysis of logging and alternative activities such as tourism, safari hunting, and harvesting of non-timber forest products including medicinal plants and zoo animals (Telesis USA: "Sustainable Economic Development Options for the Dzanga-Sangha Reserve, Central African Republic;" 1991). This assessment found that a balanced approach combining a variety of non-consumptive uses was economically superior to the resumption of logging in a remote timber concession area chronically subject to boom-and-bust cycles and dependent on direct and indirect government subsidies. Further, the ecological degradation resulting from economically-pressed logging operations represents another long-term justification for managing the Dzanga-Sangha area for non-consumptive uses (Telesis op. cit.).

No analysis has been found by the CARPE project design team which attempts to calculate the economic costs of environmental degradation and deforestation in the central Africa region as a whole, although Ruitenbeek has described several approaches for the valuation of environmental services and their loss in Cameroon's Korup National Park (H. Jack Ruitenbeek, "Economic analysis of tropical forest conservation initiatives: examples from West Africa;" pp.241-269, in Cleaver, Kevin et al, eds., *Conservation of West and Central African Rainforests*, World Bank Environment Paper No. 1, 1992).

Economic analysis of this type can be carried out on a case-by-case basis as the CARPE activities are identified, as in the earlier cases of Korup and Dzanga-Sangha. This is not feasible for the CARPE program as a whole, however, which covers six countries with some 2 million km<sup>2</sup> of forest and which will support a wide range of technical and policy interventions yet to be specified.

When specific sites or interventions are examined, the best available data would be used to carry out assessments of the type discussed above. In some cases it may be possible to attribute numerical values to ecological services, although this science is in its infancy. Natural resource accounting is an emerging field, however, and the CARPE project will be ready to support efforts within the region to help move countries toward environmentally relevant

measures of national economic performance. In a few cases it may also be possible to carry out more formal cost-benefit analysis, although this will probably not be typical of interventions supported by CARPE. More information on this subject may be found in Annex C: Economic Analysis.

## **C. Environmental Assessments<sup>10</sup>**

### **1. Programmatic Environmental Assessment (PEA)**

The purpose of the Programmatic Environmental Assessment (PEA) is to characterize the environmental effects (beneficial and negative) which the proposed CARPE program may have upon the environment, and more specifically upon the tropical forest ecosystem of the central African countries of Cameroon, the Central African Republic, the Congo, Equatorial Guinea, Gabon, and Zaire.

PEAs are undertaken to assess the environmental effects of a number of individual actions and their cumulative environmental impact in a given country or geographic area, or the environmental impacts that are generic or common to a class of agency actions, or other activities which are not country specific.

This PEA examines eight "Significant Issues" with respect to the potential impacts of the CARPE program: 1) Forest Loss; 2) Biological Diversity; 3) Environmental Planning; 4) NGO/PVO Field Activities; 5) Agricultural Extensification; 6) International Treaties and Agreements on Environment and Natural Resources; 7) Major Development Actions; and 8) Supplemental Environmental Assessments. Since program interventions have yet to be defined, given the intrinsically flexible nature of CARPE, comprehensively identifying and characterizing impacts of the program is not possible at this time. On the other hand, a process for environmental review and continuous monitoring is endorsed by this PEA, particularly as related to the grants program.

Another component of the required environmental assessments of CARPE is a Primary Tropical Forest Environmental Assessment. This identified how the proposed CARPE program would address the goals and requirements of Sections 118 [Tropical Forests], 119 [Biodiversity] of the amended Foreign Assistance Act and Section 533(c)(3) [Commercial Timber Extraction] of the 1991 Foreign Operations Export Financing and Appropriations Act (see Annex J). These sections have very specific language that require USAID to consider and implement the protection of tropical forests and biological diversity in the design of assistance programs and projects. The most significant environmental impacts currently occurring in the tropical forest ecosystems of central Africa are: (a) logging and (b) slash and burn agriculture.

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<sup>10</sup> see Annex J.

It should be noted that the CARPE program is designed with the purpose of identifying and establishing the conditions and practices required for the conservation and sustainable use of the natural resources of the tropical rainforest of Central Africa, in a manner which addresses local, national, regional and international concerns. **Implementing programs and activities under CARPE to achieve this purpose is not expected to have a significant harmful effect upon the environment.**

The following key observations and recommendations arise from the PEA. The reader is referred to Annex J to review the assessments and their full implications for implementation of CARPE, including the discussion of a grants review and monitoring process.

### **PEA Recommendations for Conservation & Sustainable Resource Use**

#### Significant Issue: Forest Loss

**Recommendation: Timber Certification.** CARPE should support a study, within one of the four countries, of the feasibility and requirements for a timber harvest certification program. Such a study should be designed in collaboration with ECOFAC and the GTZ program.

**Recommendation: Encouraging Investments in NRM by Commercial Logging Firms.** It would be in the interest of CARPE to further assess the operations of Rio Rivuma to determine if it offers a viable alternative to current logging practices. If at some later date CARPE should decide to participate in the funding of a trial utilizing Rio Rivuma practices, it would be necessary to conduct an environmental assessment in the proposed area of the trial.

CARPE should encourage studies to analyze the needs and requirements for certification, and where appropriate these studies should be conducted with the participation of local timber operators. In cooperation with other donors, CARPE could sponsor representatives from timber companies and governments on visits to currently certified timber operations.

#### Significant Issue: Extensification of Agriculture

Tropical forest conversion to agriculture is an issue of variable importance in the region; for example, in Gabon it did not appear to be a significant issue, certainly not in comparison to logging, mining and oil exploration. For the near term, it would seem that areas opened up by logging are more subject to commercial hunting than agricultural conversion. On the other hand, in Cameroon, population pressures in the northwest and west, and around the urban areas, have brought about a demonstrable increase in forest conversion to agriculture.

Environmental concerns, with respect to tropical forest conversion to agriculture, properly have put the focus upon agricultural intensification, i.e., increasing the production per unit area and decreasing the rate of slash and burn agriculture. The International Institute of Tropical Agriculture has established a humid forest research station in Cameroon to address this issue. The research appears to be addressing critical and appropriate questions.

## **PEA Recommendations for Capacity Building**

**Recommendation: NGO/PVO Environmental Guidelines (USAID 1993).** The provisional guidelines developed by the Africa Bureau are meant to promote, in a pragmatic way, the development of small-scale environmentally-sound projects, building on emerging understanding of principles of sustainable natural resources management. The guidelines should be given to all PVOs/NGOs interested in preparing proposals for funding under CARPE. This will help to ensure that proposals are consistent with USAID Environmental Procedures in all major environment-related sectors in which PVOs are likely to be involved. In the process, we hope to help empower PVOs to carry out activities with a minimum of direct USAID oversight.

**Recommendation: Strengthening and Planning at a Local Level.** While progress toward the national planning documents appears to be generally adequate, planning at a more local level, such as individual forest management plans, appears to be lacking, except where there is donor intervention. This is an area which CARPE could explore further, in order to determine how planning assistance might be developed.

As an additional measure to strengthen local NGOs it is recommended that grants and/or cooperative agreements to international PVOs require that the PVO pair with a local NGO in the design and implementation of proposals. The advantages, with respect to long term sustainability, outweigh the disadvantages.

## **PEA Recommendations for Training & Technical Assistance**

Training of personnel in forest resource assessment, management techniques, communications, and a broad range of other skills necessary to accomplish comprehensive forest conservation and sustainable forest resource use will be major activities supported by CARPE. Persons potentially targeted for such training include government officials, NGO/PVO personnel, and citizens. Training likely will be done through workshops.

## **PEA Recommendations for Analysis & Info. Dissemination**

**Recommendation: Technologies for Intensification of Agriculture.** IITA research activities referred to above should be followed by CARPE. Providing outside analysis of the applicability of research activities to farmer needs and biodiversity conservation, and to promote their application, would be appropriate.

## **PEA Recommendations for Regional Planning**

**Recommendation: CARPE request each government to nominate an "advisor" to the CARPE program.** This person would serve as a contact between the government and CARPE to coordinate activities which may call for government participation in donor meetings, seminars and policy review.

As a priority action CARPE should work with other donors and host governments to develop a plan of action, within the framework of the country's national environmental action plans and to assist the bordering countries to launch an integrated planning action which would balance economic interest with the need for forest conservation.

### **PEA Recommendations for Donor Collaboration**

**Recommendation:** CARPE should call for and support a donor forest consultative group to meet regularly (e.g. two times a year) to discuss and coordinate approaches and methodologies with respect to field activities and the guidance and development of national and regional policies for tropical forest management.

Understanding the nature and causes of forest loss should be a continuing objective of CARPE, and in so doing it is necessary that intensive collaboration be undertaken with ECOFAC, GEF, GTZ, and UNDP in an effort to develop one donor voice on the issue.

It is recommended that CARPE, during the first year of implementation, meet with other donors, particularly ECOFAC, to discuss and formulate a plan for the development of regional cooperation.

### **PEA Recommendations for Program Management**

**Recommendation:** that the CARPE program require that proposals received from the PVOs contain a proposed monitoring plan designed to assess biodiversity conservation. It is further recommended that USAID form an "environmental monitoring committee" to assess the appropriateness (taking into account available resources) of proposed monitoring plans with respect to biodiversity conservation.

The new cooperative agreements to WWF, WCS and PVO/NGO NRMS should be individually subjected to Initial Environmental Examinations, as per USAID's environmental procedures, Regulation 16. The process for grants review and approval provided under the Biodiversity Support Program is further explained in the following guidance.

### **Guidance for Sub-Grant Environmental Review**

It is presumed that the NGOs/PVOs and others in drafting their proposals will address the way in which their interventions will be designed, implemented, monitored and evaluated during the course of the project. Indicators to be used in monitoring will be spelled out in the design of the grants, and an environmental review will be included in each proposal. Those institutions assisting in capacity-building should include environmental considerations in their training and technical assistance functions.

The Biodiversity Support Program under the Conservation of Biological Diversity project has been granted a "Categorical Exclusion" for its activities under USAID's Environmental

Procedures, meaning that the actions in which BSP will be engaged are not expected to have a significant negative effect on the natural or physical environment, and that USAID does not have knowledge of or control over the the details of the specific activities. The predecessor biodiversity conservation and global climate change grants to under the NRMS and PARTS projects have been implemented satisfactorily.

On the other hand, this does not obviate the need to ensure that the individual interventions are designed in an environmentally-sustainable manner. To this end the Bureau Environmental Office (BEO) intends that the following procedure be followed. These steps relate to how the grants, and associated mitigation actions, will be identified and reviewed on an individual basis after project authorization in accordance with Regulation 16, Section 216.3(a)(2). Specifically, these steps include:

- a. The grants will be individually reviewed according to a screening and environmental review process, which will determine the Category of each grant. The 3-tier categorization process is according to the AFR NGO/PVO Environmental Guidelines" and as further defined in the CARPE Programmatic Environmental Assessment (PEA);
- b. BSP will provide each of the NGOs/PVOs involved in this project with a copy of the Africa Bureau *Environmental Guidelines for NGO and PVO Field Use in Africa: Sound Environmental Design for Planning and Implementing Humanitarian and Development Activities*. The proposals will also spell out how negative impacts will be mitigated when and if they are detected during monitoring and evaluation.
- c. PVOs and NGOs will participate in, and apply, appropriate environmental assessment and management training;
- d. A monitoring and evaluation process will be put in place and used by the NGOs and PVOs; and
- e. BSP will keep the BEO and REO apprised of grants provided, including the type/nature, scale, funding levels and status of the individual grants approved under the process as described this guidance and in the PEA.
- f. USAID will be involved in a mutually agreed fashion in the review and concurrence on a grants proposal review and monitoring process.

In the event that a PVO is given a grant and initiates sub-grants, the PVO will be responsible for following the same procedures outlined above, and in particular will follow (e) above so that the PVO Project Manager will be apprised of the type/nature, scale, funding levels and status of individual sub-grants.

The BSP PVO Grants Manager will categorize the proposed interventions according to a scheme similar to the following:

**Category 1:** sub-grants that would normally qualify for a categorical exclusion under Reg. 16 (e.g., community awareness initiatives, training at any level, provision of technical assistance, etc.);

**Category 2:** sub-grants that would normally qualify for a negative determination under Reg. 16 based on the fact that the grantee used an environmentally-sound approach to the activity design (e.g., the sub-grant design followed, and the sub-grant manager has access to and will follow, a series of guidelines for the design of small-scale environmentally-sound activities in forestry, agriculture, irrigation, water supply, and rural roads)

**Category 3:** sub-grants that will involve the procurement and/or use of pesticides, some light industrial plant production or processing (sawmill operation, agro-industrial processing of forestry products), or will involve intervention operating in a critical habitat for any endangered species, or other similar activity where a possibility exists for significant negative environmental impact.

It is assumed that the majority of sub-grants will fall within Categories 1 and 2. Category 3 grants, if any, should be reviewed by BSP project management prior to approval. The BSP PVO Grants Manager will maintain a current list of sub-grants, with summaries of activity where necessary, in order to monitor the area and scope of activities involved and to mitigate any potential negative environmental impact and to expand on those experiences that lead to positive environmental impact.

**Recommendation:** The Grants Management Unit of the Biodiversity Support Program might contract with organizations such as Gabon Vert in Gabon to establish the grant criteria format and guidance for preparation of grant proposals and implementation plans. A copy of the approved proposals should be submitted to the Africa Bureau CARPE Project Officer by the granting organization.

## 2. Primary Tropical Forest Environmental Assessment

### **Description of goals for Sections 118, 119, and 533 (c)(3)**

The goal of Section 118 of the Foreign Assistance Act is to provide assistance that supports tropical forest management which provides a sustained flow of resources essential to the economic growth of developing countries, as well as genetic resources of value to developed and developing countries alike. Section 119 sets out to maintain the viability of animal and plant species, through the regulation of hunting and trade in endangered species, limitations on the pollution of natural ecosystems, and protection of wildlife habitats.

In addition to imposing requirements on USAID through amendments to the Foreign Assistance Act, the Congress can also do so through legislation that provides appropriations to the agency. Section 533(c)(3) provides such an example. It prohibits the expenditure of funds for any activity, program, or project that "would result in any significant loss of tropical forests"

or involve "commercial timber extraction of primary tropical forest areas" unless an environmental assessment:

- (1) identifies potential impacts on biological diversity;
- (2) demonstrates that all timber extraction will be conducted according to an environmentally sound management system which maintains the ecological functions of the natural forest and minimizes impacts of biological diversity; and
- (3) demonstrates that the activity will contribute to reducing deforestation (Russo, 1994).

### **Potential Impact of CARPE on Biodiversity**

CARPE activities would include support for better cataloging and study of plant and animal species, their distribution, ecology and values for human use; analyses of how reserves are used by people and wildlife, and how they can be better managed to meet conservation and development objectives; and how enforcement and monitoring of plant and wildlife harvest regulations and timber harvest rates can be more effective.

### **Impact of CARPE on Sustainable Forest Management and Reduction of Deforestation**

Topics that would be addressed by CARPE activities in all countries are likely to include: status and trend of forest and habitat loss; large mammal population distributions and trends; local, national and regional harvest of timber and wildlife, including economic and social impacts to local communities and nations; and the effectiveness and potential for improving ongoing tropical forest conservation management programs.

Analyses of logging practices, timber harvest allocations, forest regeneration incentives, wildlife utilization trends, and the effectiveness of forest resource management are examples of policy and issue analyses that would be stimulated by the CARPE program.

Training as part of ongoing field conservation projects, workshops on standardized inventory techniques, and NGO development are just some examples of important and very useful ongoing training that will likely be supported by CARPE.

Ecotourism projects and "bioprospecting" for species and species products that are useful for medicinal and pharmaceutical products have good potential for significantly more community-level involvement.

### **Impact of CARPE on Establishing Policies & Practices for Improved Forest Management**

Forest policy and issues analyses in the subject countries and for the region are important topics that will be promoted. Biological and socioeconomic assessments, done at various

geographic scales in all six countries, will be critical to effective CARPE program implementation.

Existing examples of communications activities that will be supported by CARPE include the African Forest Action Network, inter and intra-country radio programs, e-mail networks, conservation newsletters and environmental education materials, and community outreach activities.

National Environmental Action Plans, management plans for reserves and surrounding lands, and species recovery plans are examples of opportunities for support from CARPE.

## **VII. PROJECT EVALUATION AND MONITORING**

### **A. Monitoring Project Activities**

#### **1. Impact measures**

USAID will insist on measurable results from its programs. It is not enough to measure project inputs delivered or funds spent. The sole standard of success is the impact that programs have on global problems, host nations, their societies, and the lives of citizens. Detailed performance criteria for activities will be developed in collaboration with partners. As appropriate, the following types of questions will be asked of activities supported by USAID under CARPE:

In the area of climate change: Are greenhouse gas emissions being reduced in countries that contribute most to the problem? Have these countries identified sources and sinks of emissions and implemented national action plans that address key sectors, e.g., energy, forestry, agriculture?

In the area of biodiversity: Have levels of biodiversity in key geographical areas been conserved? Have conservation plans and strategies been implemented for these areas, including provision for protection of parks and sensitive areas and support for sustainable economic activities for inhabitants of these areas and their buffer zones? Do these plans enjoy the support of local people, such that they can be maintained over time? Have national and regional biodiversity strategies that address underlying social and economic forces been implemented, including both in-situ and ex-situ approaches? Have economic policy distortions that encourage excessive exploitation of critical habitats been reformed?

In countries where the concern is environmentally harmful natural resources management and land-use practices: Have rates of deforestation been reduced? Have subsidies or other policies that encourage deforestation been reformed? Have conservation strategies been implemented for watersheds, critical ecosystems, and habitats for rare, threatened, or endangered species? Have national forestry policies been reformed to discourage unsustainable forestry

practices? Have rates of destruction for other critical ecosystems, e.g., wetlands, rivers, and savanna areas, been reduced?

In countries where the concern is strengthening environmental policies and institutions: Have culturally appropriate incentives to encourage the conservation of resources been established? Has a comprehensive environmental policy framework been adopted? Have regulatory agencies been established and are they functioning effectively? Have local NGOs been created or strengthened and do they participate at all levels of environmental planning and monitoring? Has the environmental research capacity of indigenous institutions been enhanced?

## 2. Program Monitoring

The CARPE monitoring and evaluation system responds to several levels of program requirements. At the first level, the monitoring and evaluation system needs to respond to the internal management needs of the CARPE program. The most important of these are:

- (a) the need to generate management information necessary for day-to-day project management; and
- (b) the need to generate information necessary to assess the progress and impact of CARPE.

In addition, the monitoring and evaluation system will meet a variety of needs beyond the management of the CARPE program; this includes:

- (a) strengthening the understanding of socio-economic, ecological and other factors which erode the Congo Basin's natural resource base;
- (b) strengthening institutional capacity within the region to generate and analyze data needed to improve natural resource policies, development, and ecosystem management.

To accomplish these objectives, the CARPE monitoring and evaluation system is divided into four basic categories of program implementation and progress:

- program inputs;
- program outputs;
- indicators of purpose level achievements; and
- indicators of goal level achievements.

The first two of these categories reflect in large part the internal management needs of the CARPE program. Monitoring of program inputs entails an on-going system for tracking the use of CARPE resources, including such activities as the grants program and technical support. Monitoring of outputs shifts the focus toward the program's impacts, by identifying and tracking

the tangible achievements of the various activities carried out by CARPE's collaborators and partners. This would also include monitoring of any environmental impacts, discussed in Part VI. C, above. Categories of CARPE outputs are also discussed in Part III. C, above. These include:

- testing and demonstration of conservation approaches;
- capacity-building;
- training and technical support;
- analysis and information dissemination;
- regional planning;
- donor coordination; and
- program management.

Within each of the categories, a monitoring system will be devised which identifies and tracks tangible indicators of progress and achievement. The last category listed above, program management, is treated separately, as discussed above in the discussion of monitoring of inputs.

Monitoring of activities at the purpose level requires the CARPE program to focus upon indicators and measures which can capture changes in the conditions and trends related to sustainable natural resource use in the Congo Basin. The discussion of the project purpose, in Part III. B, above, describes eight potential purpose-level indicators. CARPE management will develop a monitoring system built around this framework which can capture important evidence concerning the program's ability to accomplish progress at the purpose level. From this standpoint, purpose-level monitoring plays an important role with respect to internal management of CARPE.

At the purpose level, the monitoring and evaluation system begins to broaden the audience beyond those concerned with CARPE management. As described above, important aspects of the M&E system at this level concern strengthening regional institutional capabilities to understand natural resource issues and trends, and strengthening the general knowledge base about the threats to the Congo Basin ecosystems.

The program goal, to reduce the region's rate of deforestation, sets a particularly difficult task for monitoring and evaluation. Better information about deforestation rates will be produced by CARPE, and this will play a fundamental role in monitoring progress at the goal level. In addition, it might be possible to establish a series of field sites for ecological monitoring, to provide more micro-level information, as described in Part III. A, above.

This also illustrates the point that information generated by various monitoring activities can become "inputs" for other parts of the CARPE program. For example, better data on deforestation rates, which is used as an indicator of the program at the goal level, will also contribute to strengthening the understanding of natural resource issues and trends. Thus, the design of the various indicator systems to be used for implementing CARPE's monitoring and evaluation system will take into account the benefits of ensuring that these activities do not take

place in isolation from one another, but instead are linked in ways which generate useful synergies throughout the network of CARPE collaborators and activities.

## **B. Evaluations**

CARPE will receive two evaluations, a mid-term evaluation and a final evaluation. The mid-term evaluation will examine progress towards achieving the Project's objectives (Goal, Purpose, Output and Input levels), with the aim of identifying needed changes or adjustments that must take place during implementation. The mid-term evaluation is tentatively scheduled for March 1997.

The final evaluation will focus on assessing the impact of the Project and drawing lessons learned for further USAID assistance in the sector. It will also provide guidance for the design of the second five-year phase of CARPE. The final evaluation is tentatively scheduled for June 1999.

## **C. Audits**

It is not anticipated that CARPE will involve contracts with for-profit firms (except for evaluation and audits). USAID Grants and Cooperative Agreements with U.S. organizations will be audited in the United States by the cognizant federal audit agency or an Agency-contracted non-federal auditor. These audits will be scoped by the Office of the Inspector General and monitored by the USAID/W Office of Procurement (FA/OP).

There will be no direct disbursement to host government entities or non-U.S. grantees. Therefore, USAID's audit responsibility should be limited to the above. Funds are included in the budget to cover any special audits which USAID should decide to carry out.

## **VIII. CONDITIONS AND COVENANTS**

No special conditions or covenants are anticipated during the CARPE program.

**ANNEX A: LOGICAL FRAMEWORK**

**Project Title and Number: CENTRAL AFRICAN REGIONAL PROGRAM FOR THE ENVIRONMENT (698-0548)**

**Life of Project: FY 95 to FY 00**

**Total U.S. Funding: \$14,005,000**

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>Program Goal</u></p> <p>To reduce the rate of deforestation of the tropical forests in the Congo Basin, in order to conserve the biological diversity contained in those forests and, in the long-run, to avert potentially negative changes in global and regional climate.</p>	<ul style="list-style-type: none"> <li>- The rate of deforestation of the tropical forests in the Congo Basin is reduced by at least 10 percent.</li> <li>- Forest integrity is maintained at key ecological sites.</li> </ul>	<ul style="list-style-type: none"> <li>- Trend analysis based on remote sensing estimates of changes in forest cover over time.</li> <li>- Comparison of baseline and endline census data on populations of key indicator species (e.g. elephants, gorillas, bonobos).</li> </ul>	<p>That deforestation is the major threat to biodiversity in the region.</p> <p>That the hypotheses advanced in recent USAID-funded studies which linked deforestation and adverse climate changes in the Congo Basin are valid.</p>

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>Program Purpose</u></p> <p>To identify and begin to establish the conditions and practices required for the conservation and sustainable use of the forest resources of the Congo Basin in a manner which addresses local, national, regional, and international concerns.</p>	<p><u>Conditions indicating purpose has been achieved</u></p> <ul style="list-style-type: none"> <li>- Understanding improved of the overall ecology and biodiversity of the Congo Basin Biosphere, the threats to that ecosystem, and the potential impact of the degradation of that environment, particularly in terms of global climate change.</li> <li>- Comprehensive long-term strategies developed for addressing the global climate change and biodiversity issues affecting the Congo Basin ecosystem.</li> <li>- A cadre of trained and committed environmentally-conscious development specialists established within the countries of the Congo Basin.</li> <li>- A policy environment created which is conducive to land use and production systems that conserve the tropical forests and the biodiversity that they contain.</li> <li>- Field approaches aimed at slowing deforestation in the region identified and tested, and key conditions that influence the effectiveness of these approaches identified.</li> </ul>	<ul style="list-style-type: none"> <li>- Key hypotheses identified at the beginning of the project have been tested and results published.</li> <li>- Strategy documents published.</li> <li>- Evaluation team assessment after discussing issue with key informants.</li> <li>- Identifiable policy changes have been made and the evaluation team determines that project activities played a role in their accomplishment.</li> <li>- Alternative approaches identified at the beginning of the project have been field tested and results published and/or incorporated into ongoing projects.</li> </ul>	

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATOR	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>Program Purpose (cont.)</u></p>	<p><u>End of Project Status (cont.)</u></p> <ul style="list-style-type: none"> <li>- Creation of partnerships among environmental and development-oriented NGOs, researchers, governments, and the international community, aimed at collaboratively addressing Global Climate Change, biodiversity, and deforestation issues affecting the Congo Basin; and</li> <li>- Indigenous NGOs strengthened and playing an advocacy role for the environment. Environmental PVOs and NGOs playing a constructive role in host government policy analysis and formulation.</li> <li>- Networks created linking NGOs, researchers, host government staff, and the international community aimed at collaboratively attacking deforestation, biodiversity, global climate change, and conservation issues in the Congo Basin.</li> </ul>	<ul style="list-style-type: none"> <li>- Evaluation of integrated conservation/development pilot efforts.</li> <li>- Evaluation team assessment after discussing issue with key informants.</li> <li>- Evaluation team assessment after discussing issue with key informants.</li> </ul>	

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>Outputs</b></p> <ul style="list-style-type: none"> <li>- Development and implementation of natural resource management plans for key protected areas and adjacent zones.</li> <li>- Identification and pilot testing of ecologically sustainable income-generating activities.</li> <li>- Completion of detailed biological and socio-economic surveys and assessments and cross-cutting analytical studies on issues relevant to the conservation of the Congo Basin, particularly with respect to the potential impact of deforestation on changes in the climate of the Congo Basin.</li> <li>- Formulation of regional climate change and biodiversity conservation strategies.</li> </ul>	<ul style="list-style-type: none"> <li>- NRM plans developed and implemented for three protected areas and their adjacent zones.</li> <li>- Three pilot efforts aimed at identifying and field testing approaches for sustainable forest use completed.</li> <li>- Completion of analyses and dissemination of research findings on: (1) the status of the forests and biodiversity in key areas of the Congo Basin, and (2) the interrelationships between forest areas and the human population.</li> <li>- Research completed addressing key issues and hypotheses vis-a-vis the global climate change implications of deforestation in the Congo Basin and other cross-cutting issues. Dissemination of the findings, particularly to host country policy makers.</li> <li>- Completion of national and local policy studies required for the formulation of regional climate change and biodiversity strategies.</li> <li>- Regional strategies developed to deal with climate change and biodiversity (and, preferably, linked to National Environmental Action Plans).</li> </ul>	<ul style="list-style-type: none"> <li>Grantee reports and publications, evaluation team assessment of impact.</li> <li>Grantee reports and publications, evaluation team assessment of impact.</li> <li>Research publication and dissemination. Peer review and evaluation team assessment of the importance and quality of the work.</li> <li>Research publication and dissemination. Peer review and evaluation team assessment of the importance and quality of the research.</li> <li>Publication of studies. Evaluation team assessment after discussing impact of studies and strategies with key informants.</li> </ul>	<ul style="list-style-type: none"> <li>That the region remains sufficiently stable to permit field activities by NGOs, allow biophysical, hydrological, and meteorological research to continue, and permit host country governments to focus on longer-term issues, such as environmental degradation.</li> <li>That the limited bilateral relationships currently in force will not unduly impede the ability of implementing agencies to carry out project activities.</li> </ul>

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>Outputs</b></p> <ul style="list-style-type: none"> <li>- Indigenous NGOs strengthened to permit them to more effectively carry out natural resource development and conservation activities.</li>   <li>- Better trained field staff of international PVOs and indigenous NGOs, as well as host country government and research personnel, and members of the local population.</li>   <li>- Networks established linking indigenous and international NGOs, researchers, host government officials, and others interested in dealing with environmental issues affecting the Congo Basin.</li> </ul>	<ul style="list-style-type: none"> <li>- Training courses provided to indigenous NGOs and the field staff of international PVOs in management, project accounting, project implementation and related topics.</li>   <li>- Evidence exists of successful efforts by local conservation groups to stop activities or block proposals that would threaten the integrity of protected forest areas (e.g. the granting of logging concessions).</li>   <li>- 250 individuals receive technical training (short-term and in-country) in various environmental topics relevant to the Congo Basin.</li>   <li>- Networks of environmental NGOs established in each country and working collaboratively with local researchers and host government officials to examine biodiversity and global climate change issues.</li>   <li>- Indigenous NGOs working closely with international PVOs to carry out environmental activities, and beginning to take the lead in some projects.</li> </ul>	<p>Training reports. Evaluation team assessment of PVO/NGO performance during project implementation.</p> <p>Evaluation team assessment after discussions with key informants.</p> <p>Training reports. Evaluation team assessment after discussions with key informants.</p> <p>Evaluation team assessment after discussing networking program with key informants.</p> <p>Evaluation team assessment after reviewing jointly implemented activities.</p>	<p>That the region remains sufficiently stable to permit field activities by NGOs, allow biophysical, hydrological, and meteorological research to continue, and permit host country governments to focus on longer-term issues, such as environmental degradation.</p> <p>That the limited bilateral relationships currently in force will not unduly impede the ability of implementing agencies to carry out project activities.</p>

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>Outputs (cont.)</b></p> <ul style="list-style-type: none"> <li>- More active participation by Congo Basin countries in Global Climate Change and Biodiversity Conventions and the decisions and negotiations therein.</li>   <li>- Development of a regional information system.</li>   <li>- Evaluate, and if feasible, establish a Congo Basin foundation to manage an endowment for the sustained funding of NGO and African researcher efforts in the region.</li> </ul>	<ul style="list-style-type: none"> <li>- Host government staff become more active participants in these conventions.</li>   <li>- Congo Basin countries sign conventions on Biodiversity Conservation and Global Climate Change.</li>   <li>- Creation of a geographically-based information system located in the region and collecting and analyzing socio-economic and environmental data on the Congo Basin.</li>   <li>- Feasibility analysis completed. If feasible, foundation initiated.</li> </ul>	<p>Evaluation team assessment after discussions with key informants.</p> <p>Conventions formally signed.</p> <p>Information center operational. Evaluation team assessment of impact after discussing program with key informants.</p> <p>Evaluation team review.</p>	

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<u>Inputs/Resources</u>			
1. Cooperative Agreements to WWF and WCS	- 2 Cooperative agreements		
2. OYB Transfer to the Global Bureau's Conservation of Biological Diversity Project for the Biodiversity Support Program (BSP): (a) Grants Program; (b) Congo Basin Environmental Specialist (c) Advisory Group/peer review (d) Congo Basin field office (e) analysis and dissemination.	- est. 30 grants		
4. An OYB Transfer to the Global Bureau's the Forest Resources Management II Project for the Forestry Support Program for technical assistance and training support			

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<u>Inputs/Resources (cont)</u>			
5. RSSA to the NASA Goddard Space Flight Center and the Univ. of Maryland for:			
(a) research on changes in forest cover using remote sensing and	360,000		
(b) development of a regional GIS	285,000		
6. Cooperative Agreement with World Resources Institute for:			
(a) policy studies and workshops	380,000		
(b) consultative groups/MDS/NESDA	320,000		
7. Coop. Agreement with PVO/NGO NRMS for capacity-building for NGOs and PVOs)	576,000		
8. RSSAs with the USDA for:			
(a) Project Manager (OYB Transfer to USDA/ICD for RSSA staff personnel)	560,000		
(b) Management support/evaluations/audits	427,500		
<b>Total</b>	14,005,000		

## ANNEX B: ILLUSTRATIVE DISBURSEMENT SCHEDULE

	May 95 Sept 95	Oct. 95 Sept 96	Oct. 96 Sept 97	Oct. 97 Sept 98	Oct. 98 Sept 99	Oct. 99 May 00	Total
1. Cooperative Agreement - WWF	10000	760000	450000	500000	500000	280000	2490000
2. Cooperative Agreement - WCS	67500	432500	540000	570000	570000	320000	2432500
							0
3. OYB Transfer To BSP							0
- field grants program (indicative)		1380000	1000000	1000000	1000000	250000	4630000
- Congo Basin Environ. Specialist		210000	140000	140000	140000	70000	700000
- Advisory Groups/peer review		40000	40000	40000	40000	20000	180000
- Congo Basin field office		120000	120000	120000	120000	60000	540000
- analysis and dissemination	61000	20000	30000	34000	25000	15000	124000
Subtotal - BSP	61000	1770000	1330000	1334000	1325000	415000	6174000
							0
4. RSSA to NASA/UMD							0
- Forest Cover Research Project	50000	115000	80000	70000	65000	30000	360000
- GIS applications	15000	100000	55000	55000	50000	25000	285000
Subtotal - NASA/UMD	65000	215000	135000	125000	115000	55000	645000
							0
5. WRI/Consultative Groups							0
- WRI forest sector activities	225000	175000	70000	60000	50000	25000	380000
- Consultative Groups/MDS/NESDA	30000	110000	60000	60000	60000	30000	320000
Subtotal - WRI/Consultative Groups	255000	285000	130000	120000	110000	55000	700000
							0
6. PVO/NGO NRMS Coop. Agreement	125000	275000	100000	90000	75000	36000	576000
							0
7. USDA							0
- USAID/W RSSA Project Manager	160000		160000	160000	160000	80000	560000
- Management Support	100000	100000	85000			75000	260000
- FSP Technical/training support	151500	167500					167500
Subtotal - USDA	411500	267500	245000	160000	160000	155000	987500
Pre-CARPE analytical activities	995000						
CARPE TOTAL		4005000	2930000	2899000	2855000	1316000	14005000

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## Annex C COUNTRY ANALYSES

### 1. CENTRAL AFRICAN REPUBLIC

#### Environmental Situation

The Peoples Republic of Central Africa (CAR) is a landlocked country in the heart of Africa. It's land area is 623,000 km<sup>2</sup>. The tropical moist forests of the Zaire River Basin reach their northern limit in CAR gradually giving way to sparse woodland savanna and gallery forests in the interior and finally to shrub and bush savanna in the north. There are two main types of forest and woodland resources in CAR, they are: 1) dense tropical forest located in the southwest and north of Bangassou, together with gallery forests along the main rivers and bottomlands, and 2) woodlands and disseminated trees in the savanna zone, ranging from wooded savanna over most of the country to shrub and bush savanna in the northernmost region.

Critical sites in CAR include lowland forests in the extreme southwest of the country, particularly at Dzanga-Sangha, and the Mbaere-Bodingue-Ngogo Forest, and in the south the lowland forests around Bangassou. Isolated patches of forest in the north include Kotto, Kaga-Bandoro, Nana and a large dry forest south of Oudda. Savanna reserves in the north of the country are also of great importance for large mammals. These areas include Bamingui-Bangoran National Park, and surrounding reserves and the Manovo-Gounda-St. Floris National Park. The hills of the northeast, in particular the Massif des Bongos and the Massif du Dar Chala, are important for plant conservation.

The knowledge of forest resources in CAR is rather poor since no comprehensive national forest inventory has ever been done (as of 1990). The area under dense tropical forest is estimated at 3.5 million ha or 5.5% of the total country. The dense, humid, semi-deciduous forest of southwest CAR has a high density of commercially valuable redwoods such as Sapelli and Sipo, as well as a high number of white woods including Ayous and Limba.

The dense forest of CAR is diminishing. Climatic variations explain some of the recession of the forest, however, man is undoubtedly an important factor through the practice of slash and burn agriculture, associated bush and forest fires, animal husbandry and gathering of firewood for a rapidly growing urban population.

Firewood collection as well as slash and burn cultivation are the two main causes of deforestation in CAR. Construction of new roads penetrating into forest zones plays a major role in forest destruction, since inevitably new settlements will occur along the roads.

The forests and savannas of CAR are home to a rich diversity of native fauna and flora. Animal resources include numerous lowland gorillas, forest elephants, bongos, forest buffalos, and chimpanzees.

Due to a strong increase in demand for wild game, commercial hunting is expanding rapidly with very little effective control by the administration, thus, there is an ever-increasing risk of over exploitation. In addition, poaching has been particularly destructive in the savanna zone of CAR in recent years.

Despite the substantial areas designated as national parks or reserves (about 61,000 km<sup>2</sup> or close to 10% of the total land area of CAR), very little effective protection has been exercised so far, mainly as a result of lack of adequate staff and operating resources. In addition, lowland rainforest is insufficiently represented in the country's protected area system.

Additional threats to the environment and biodiversity in CAR include the risk of rinderpest to animal populations, and the possibility of submersion of forest areas as a result of damming the Oubangui River at Mobaye.

### Economic Situation

CAR lacks the extensive biological natural resources (eg. petroleum) of other Central African nations. It is the only landlocked country of the six CARPE countries and is further handicapped by the comparative inaccessibility of resources. Agriculture accounted for 41% of the GDP in 1991 and provides three of the five main export products (coffee, cotton and tobacco). Mining, manufacturing and utilities (15%) construction (3%) and services (40%) account for the balance of the GDP. The export economy of CAR has been dominated by diamond extraction, both industrial and gem quality. In 1989 diamond revenues accounted for 45% of total export revenue.

Agriculture occupies about 80% of the population. CAR is basically self-sufficient in major food crops which represent about one third of agriculture. Value-added livestock accounts for another third and the balance consists of cash crops (5%). Cash crops include oil palm, sugarcane and the export crops, coffee, cotton and tobacco. CAR's export crops and timber account for about half of the total official exports. While natural conditions in CAR are favorable for agriculture and animal husbandry, its performance in the agricultural sector is poor considering its potential.

The forest industry in CAR ranks third after diamonds and coffee as a main source of foreign exchange. The forestry sector also contributes significantly to government revenues in the form of fees and taxes. In recent years it has provided employment to 2,500-4,000 people. Forest legislation ensures a high degree of local processing for forest products, which often exceeds 70%. The World Bank estimates that CAR could maintain a sustainable forestry yield of roughly 1 million m<sup>3</sup> per year.

Gross production of logs has declined since the early 1980's as a result of a reduced demand for tropical African woods, an increase in production costs, and low investment in mainte-

nance of equipment. Forest exploitation is selective and it is estimated that only about 10-15% of the existing dense forest has been subject to logging.

The forest and woodlands of CAR supply over 90% of the energy requirement of CAR's households and are an essential part of the crop production system. Wild game is an important source of protein throughout the country in both forest and savanna zones. The forests also provide fruits and other wild foods and medicinal plants.

Organized hunting and observation tourism are quite limited. Purchase of permits and collection of taxes for hunting bring in a revenue of approximately US\$500,000 annually.

In the mid-1980s the government started to follow a structural adjustment program supported by the IMF, France and the World Bank. The program focused strongly on liberalizing the economy to encourage private sector raising farm productivity, slimming the administration and parastatal organizations and strengthening public finances. Government plans have concentrated resources on agriculture, rural development and infrastructure, as well as social services.

### Social/Political Situation

**Overall political situation:** The colony of Oubangui-Chari was formally founded in 1907 and separated from French Equatorial Africa in 1916. The territory achieved internal self-government in 1958 with Bathemeny Boganda as its first prime minister. Mr. Boganda was succeeded by David Dacko, who became the first president of the republic at independence in August 1960. Mr. Dacko was overthrown by his cousin Jean-Bedek Bokassa, commander of the army, in December 1965. President Bokassa became increasingly corrupt and dictatorial, crowning himself emperor in December 1976. French troops reinstated Mr. Dacko as president while the emperor was abroad in 1979. President Dacko restored the republic, but in September 1981 the army took over again, led by General Andre Kolingba. The new president created a new ruling party, the Rassemblement democratique centrafricain (RDC) in May 1986. In mid-1990 the CAR joined the growing number of francophone African states where people were taking to the streets to demand reform. A wide range of individuals and opposition politicians formed a committee to demand a national conference to formulate democratic reforms. President Kolingba repeatedly rejected demands for a national conference with the power to override the president. Meanwhile the government was largely paralysed causing key economic decision to be put on hold, the loss of two academic years, and holdbacks by the IMF, World Bank and France for major aid funding. Elections were finally held in October 1992. President Kolingba annulled the vote. In June 1993 the new cooperation minister in France flew to Bangui and persuaded the president to bring forward the polls, which he had just postponed again to October. He appointed a special envoy with the task of monitoring the election. On September 19, Ange-Felix Patasse, an agricultural specialist, emerged victorious as the newly elected president.

The EIU outlook for 4th quarter 1994 says that "Moves by Mr. Patasse against associates of his predecessor have created a tense atmosphere. France has maintained its tough position over adjustment monies and the IMF is disappointed over high wage bills and weak revenue. Normal school exams have gone ahead for the first time in four years. Privatisation is on the agenda."

**Population Trends and Impacts on the Forest:** Population growth plays a large role in deforestation through encroachment by small-holders into remaining forest areas. CARs population was estimated at 3.17 million in mid-1992. It is growing at a rate of 2.7% per year. Population growth projections have been revised downwards in the recent years due to the increase in AIDS among young adults and changing attitudes towards contraception and family size. The population may be greater than the country can agriculturally sustain under current conditions. People are migrating to urban centers at an annual rate of 4.5% bringing with them increased demands for fuelwood, wood for construction, and land, all of which ultimately contribute to environmental degradation. Currently about 52% of the population lives in rural areas and 24% in Bangui, with the rest in provincial towns.

The Pygmies (Bangombe and Babendjele) are the indigenous population most associated with living in forest areas of CAR. The Bantus are known as agriculturalists, and the Ngoundi and Sangha-Sangha are fishermen. The main distinctions between other ethnic groups are river people and savannah people. The river groups, Yakoma and M'baka have traditionally supplied political leaders. The savannah peoples include the Sara, the Madjia, the Gbaya and the Bamba.

#### Institutional Structure and Environmental Policy

**Public Sector Institutions:** The main parastatal agencies are largely crop-based, they include the Societe centrafricaine de developpement agricole, which covers the cotton producing areas.; the Agence de developpement de la zone cafeiere; the Agence centrafricaine de developpement de l'Ouham-Pende, which coordinates rural development projects in the Ouham-Pende region; and the Societe franco-centrafricaine des tabacs.

**Major Policies and Policy Issues:** The government of CAR has promoted a policy of increased agricultural output coupled with decreased reliance on imported foodstuffs. An integral part of the plan is the improvement of the national transportation network.

**Structure of Logging Industry:** A forest concession system began at the turn of the 20th century. Concessionaires were given large blocks of forest for exploitation. They were required to plant large plantations of oil palms and other cash crops, but they also had the right to exploit almost any natural product. While concessionaires were required to work amicably with the local people, when this was unsuccessful they introduced forced labor.

During the late 60's and early 70's tens of logging companies were set up along the Sangha River to exploit the rich stands of Sapeli and Sipo. While mechanized, this activity was labor

intensive and a new labor force was imported into the area. Since the 1960's nine logging companies have been working in the Dzanga Sangha region. One particular concession, Slovenia Bois, established in Bayanga in 1972, had a labor force of over 600 people. In the 1970's and early 1980's most of these companies were highly profitable because of high wood prices. Since the mid-1980's most of these companies have experience bankruptcy at least once, creating a very unstable socio-economic atmosphere in the region. Transportation problems make logging more costly in CAR than in Cameroon or Gabon.

Gross production by the logging industry reached a maximum of around 400,000 m<sup>3</sup> in the early 1970s, which is well below the sustainable yield, roughly estimated at about 1 million m<sup>3</sup> per year. In 1988 gross log production totalled only 152,000 m<sup>3</sup>.

#### **Status of environmental NGOs:**

-WWF has developed and submitted a \$1.3 million project for the Bangassou area to the GEF. This would make Bangassou the second largest protected area in CAR. Support for this project will also come from the US DOI Fish and Wildlife Service.

-Proposal from WWF submitted to USAID for a Tri-National Project. The area would include protected areas in Congo, Cameroon and CAR. These are the Dzanga Sangha (CAR), Lac Lobeke (Cameroon) and Nouabale-Ndoki (Congo). Current funding sources for these areas include GEF, GTZ, WWF, WCS, USAID and US Forest Service.

-The Foundation Centrafricaine pour la Sauvegarde des Ressources Naturelles (FOCSARENA) was formed by the government of CAR to promote rational use of forest resources and conservation of plants and animals. Activities are to include promotion of cookstoves and anti-poaching controls. As of 1995, the government was still seeking funding for this from the international donor community.

-CARE was in the country in the 1970s, but left in 1982.

-AFRICARE has a representative but no projects at present.

-The World Bank is funding a Volunteers in Technical Assistance (VITA) program to implement a small revolving loan project with the intention being that this project will evolve into a local NGO.

-UNDP is involved in a pilot project working with local NGOs in NRM. Two UN volunteers are assigned to local NGOs working in environmental education. There is also a UN fund for NGO micro-projects. GEF funds are also available for an NGO project, but sponsors have not found a viable project.

## Ongoing Environmental Initiatives

### **Major multi-lateral and bilateral donor-funded projects:**

-ECOFAC is a regional project covering Central Africa (Cameroon, Congo, CAR, Equatorial Guinea, Gabon, Sao Tome and Zaire (currently suspended) that seeks to promote conservation and rational utilization of natural resources. ECOFAC began in CAR in April 1993 and is financed by the EEC. It has two 3-year implementation phases. ECOFAC is implementing the N'gotto Mbaere Bodingue Project which covers 130,000 contiguous hectares in the area southwest of Bangui, on the road to Bayanga and the Dzanga-Sangha Reserve. ECOFAC would like to work with local NGOs. Their work includes the creation of watershed village association management units. Results of the effectiveness in organizing these units is not yet known.

The project zone involves 60,000 ha of managed forest, 45,000 ha of protected forest in the Ngotto area, and 25,000 ha of farm and community land to which rural development activities are being extended. Technical assistance to the project is provided by the firm AGRER de Bruxelles.

-Missouri Botanical Gardens is conducting a botanical survey and conservation efforts in southwestern rainforests.

-The French are implementing a rural development project.

-The World Bank is conducting a study of ecological impacts of the Route du Quatrieme Parallel, connecting Bangui with southern Cameroon.

-In 1990 the World Bank proposed a development credit for CAR for a 4-year natural resource management project. The project would include strengthening institutional capacity in the Ministry of Waters, Forests, Wildlife, Fisheries and Tourism (MEFCPT), inventory of dense forest resources in the southwest of CAR, execution of a pilot agro-forestry/land-management program in forest zones around Bangui and support to on-going protection and management of dense forest reserves. The project is in its fourth year and may have a second four-year phase.

-In 1993 the UNDP Global Environment Facility (GEF) proposed the project titled, Conservation and Sustainable Management of the Dense Forest of Bangassou. The objective of the project is the conservation and rational management of biodiversity through the participation of the local population, training of the population in the preservation of their environment, and protection of the northern edge of the tropical rainforest. If accepted the project could begin in late 1995. Along with the Dzanga Sangha, the Bangoussou forest forms the northern limit of the equatorial forest of the CAR.

-The Peace Corps currently has volunteers working in conservation education and would like to expand into environmental and NGO work.

-A Canadian firm has received a C\$10 million contract to inventory the nation's forest reserves, establish a pilot tree farming project, and improve the administration of natural resources. A complementary project of several central African nations has been funded by the EC at a level of 24 million ECUs.

#### U.S. and international PVOs

-The World Wildlife Fund has its country office in CAR and is implementing the Dzanga Sangha National Park and Reserve Project there (with USAID funding). [See Carroll, Richard "The Development, Protection, and management of the Dzanga-Sangha Dense Forest Special Reserve and the Dzanga-Ndoki National Park in southwestern Central African Republic", Jan. 1993.]

The purpose of the project is the development, protection and management of the Special Reserve and the National Park for the conservation of its important floristic, faunal and human components.

The project emphasizes development of an infrastructure to protect, develop and manage the Special Reserve and National Park for the conservation of the forests and its wildlife. Other emphasis areas include reduction of poaching within the reserve, rural development, conservation education, ecotourism, and controlled hunting.

-WWF has also proposed a Reserve Management Project for Bangassou in collaboration with the USFWS and GEF. WWF is working with a local NGO to complete a survey of the Bangassou Forest (US Fish and Wildlife Funding).

-WCS is supporting research on elephants, gorillas, and small mammals.

-The African Forest Action Network (AFAN), which is a 9-country network of NGOs concerned with forest conservation and rural development in west and central Africa, is active in CAR.

-The Projet d'Aménagement de Ressources Naturelles is financed by the World Bank and executed by Poulin Theriault Inc, of Quebec, Canada. The project has five paths of action: reinforce the ministry, protect wildlife, conduct a forest inventory, practice agroforestry and manage natural resources. In 1992 they began baseline studies choosing a pilot zone, conducting a forest inventory, conducting an inventory of useful plants, conducting soil studies and mapping. Their other activities include training, informal education, nursery preparation, agroforestry, and improved cookstoves.

## 2. CONGO

### Environmental Situation

The Peoples Republic of the Congo is located along the equator in west central Africa. The country covers 342,000 km<sup>2</sup> and is inhabited by roughly two million people. The largest ethnic groups are BaKongo, BaTeke, M'Bochi and Sangha. Over 60% of Congolese live in urban settings, the remaining 40% are scattered in small villages primarily in the central and southern portions of the country. Northern Congo is sparsely populated with settlements usually along rivers.

About 60% of the Congo is covered by tropical moist forests. Extensive exploitation of tropical wood has occurred since the 1940s. The largest remaining block of intact tropical rain forest in Congo is in the north. With the exception of the vast inundated forest, the rest of the northern region has been divided into forestry management units in anticipation of foreign investment. Transportation problems, logistics and market forces have delayed logging northern forests.

In 1993, Stephen Blake completed his Master of Science dissertation titled "A Reconnaissance Survey in the Likoula Swamps of Northern Congo and its Implications for Conservation". The dissertation focuses on the following areas: distribution and density of large mammals inhabiting the swamps, particularly elephants and gorillas, village economics and local and traditional hunting practices, impact of hunting on large mammal populations in the area, and the need for conservation in the Likouala swamps

Wilkie and Sidle conducted a "Social and Environmental Assessment of the Timber Production Capacity Extension Project of the Societe Forestiere Algero-Congolaise" (SFAC) in 1990. The assessment was required to identify and address the impact of SFAC operations on wildlife and indigenous peoples within the 850,000 ha forest concession in the Sangha region. It addresses the economic viability of the Timber Capacity Extension Project, the potential adverse impacts on the environment, natural resources, endangered species survival and indigenous peoples; and makes recommendations for eliminating or mitigating adverse impacts.

The company, formed in 1983, is entitled to harvest 85,000 m<sup>3</sup> per year of selected trees, over a period of 20 years. All timber is destined for Algerian processing plants. The cost of transporting cut timber to Pointe Noire makes it economically feasible to extract only the most desirable species, such as Sipo (*Etandrophragma utile*), KoSipo (*Etandrophragma candollei*), Sapelli (*Etandrophragma cylindricum*) and Wenge (*Millettia laurentia*). The African Development Bank approved a \$9.8 million loan to the SFAC project in 1988.

### Economic Situation

Congo emerged in 1990 as sub-Saharan Africa's fourth largest oil producer, after Nigeria, Angola, and Gabon, with output in 1992 of around 8.2 m tons. Apart from oil the main resource exploited for export is timber extracted from the rainforest and from commercial eucalyptus plantations in the south. There are no significant mining operations and the manufacturing sector is still smaller.

One-third of the population is engaged in subsistence farming, although less than 2% of the land is cultivated. Half of the populace is active in the monetized economic sector, mostly involved in commerce as Congo is highly dependent on imported goods. Agricultural products include cocoa, beans, sugarcane, bananas, peanuts, coffee, tobacco and palm oil. Light industry includes wood processing, soap, sugar, palm oil and beer production, cement, textiles, and cigarette manufacturing.

The centrally planned state has a workforce of more than 80,000 public workers. Structural adjustment efforts will necessitate a substantial reduction in government size. When this occurs, there is a strong risk that responsibilities will be moved from the public sector to the NGO community. Thus, training and networking needs for NGOs are extensive.

In January 1993, the firm of Micro Development Corps prepared a report for the government of Congo Wildlands Protection and Management Project (Global Environmental Facility). The report is titled "Development and Management of Conservation Education and Sustainable Alternative Economic Activities in Protected Areas". The report addresses management for the Conkouati and Dimonika reserves. It specifically includes direction for the following: an effective system for protection of the reserve, reinforcement of the capacity of national personnel to manage the reserve, identification and development of alternative economic activities, conservation and education programs, facilitation of environmental studies, and research and development of alternative financial support for activities which would continue after termination of the project.

### Social/Political Situation

**Overall political situation:** Congo became an autonomous part of the French community in 1958 and was granted independence on August 15, 1960. Its first president Abbe Fulbert Youlou resigned in August 1963. His successor, Alphonse Massemba-Debat moved Congo into Africa's "radical" camp introducing the first socialist five-year plan for 1964-1968. In September 1968 Massemba-Debat was over-thrown by Captain Marien Ngouabi. Ngouabi was party chairman until he was assassinated in March 1977. The PCT chose Colonel Joachim Yhombi-Opango as the next president, but his attempt to improve relations with the West and encourage foreign investment displeased hardliners. He was replaced by Colonel Denis Sassou-Nguesso. President Sassou-Nguesso began to push through a series of far-reaching free-market reforms in 1988-89. A massive strike campaign, student protests and demands for reform led to a national conference lasting from March-June, 1991. The conference declared itself sovereign, replacing the PCT government with a transitional cabinet of three, Andre Milongo, a World Bank official, Bishop Ernest Kombo, the confer-

ence chairman, and President Sassou-Nguesso. The triumvirate ruled until mid-1992. A new multi-party constitution was adopted by referendum in March 1992. Pascal Lissouba was elected president on August 16, 1992. During the course of 1993 the country rapidly became ungovernable with mass protests by Kolelas supporters (competitor with Lissouba during the presidential election). Mediation by France and the Gabonese president Omar Bongo, led to a re-run election for parliament in 1993. Supporters of President Lissouba maintained a slim majority in parliament. The security situation in Brazzaville deteriorated. Armed militias set up by supporters of Mr. Kolelas led to a number of shooting incidents with a death toll of 200 by the start of 1994.

The EIU country report for the 4th quarter 1994 says "Reconciliation has taken place slowly. Decentralization plans have succeeded in seducing the opposition, with Bernard Kolelas and Jean-Pierre Thystere-Tchikaya, becoming mayors of Brazzaville and Pointe Noire respectively. Congo has regained eligibility for World Bank and ADB money and has received more French aid. A new local money market has taken shape, but BBC bank has closed. Privatisation and oil laws have been passed."

**Population trends and impacts on the forest:** Congo's population reached 2.4 million in 1992 with an average growth rate of 3% over 1990-95. With a land area of 342,000 square kilometers, the overall population density is low, at 7 per square kilometer. However, Congo is one of the most urbanized countries in Africa with 41% of the population residing in urban areas in 1991.

Congo's principal ethnic groups are the Bakongo (who live near Brazzaville), the Vili (on the Atlantic coast) and the Teke, M'bochi and Sanga of the plateaux in the center of the country.

#### Institutional Structure and Environmental Policy

**Structure of logging industry:** In 1984, the World Bank loan for the Ouessou Wood Processing Project was initiated. It was designed to expand logging and wood processing in northern Congo. Prior to 1991, this World Bank/GEF project was suspended without completion of the main project component, the wood processing plant. Although roads were created and some areas were logged, the round wood cut for the project was never removed from the harvested areas.

There are four main forest zones. In the south the Mayombe zone (1 m ha) has valuable limba resources and the Chailu zone (3 m ha) is the main source of okoume. These zones have traditionally been the most exploited. logs are transported to Pointe Noire by road from Mayombe and by rail from Chaillu. In the north there are about 15.5 m ha of forests in Sangha and Likouala. Logs are floated or transported by barge down the Congo to Brazzaville, where they are transferred to the railway for shipment to Point Noire. Because of market changes and transportation problems four of the eight logging companies active in the north have suspended activities since 1991.

Government policy requires that timber companies process at least 60% of their production locally. The main products are timber, veneer and plywood. The Unite d'afforestation industrielle du Congo (UAIC) has planted 40,000 ha of eucalyptus which it hopes to use in a paper pulp mill at Pointe Noire. In addition, they are producing telegraph poles for export and charcoal for export to Sahelian countries.

**Status of environmental NGOs in the country:** Only two international NGOs are currently working in the natural resources management sector. They are IUCN-World Conservation Union and Wildlife Conservation Society. The two most established NGOs, CARITAS and SOS are European, church-based NGOs entirely supported from abroad. In 1993 the committee of national NGOs was formed by the GOC, called CONACONG, but it may not yet be operational. The NGO, "Association pour Developpment, Espoir et Vie" works in soap production, fish culture and collective farming.

Most Congolese NGOs in NRM are concerned with urban consumption and pollution issues, including degradation of coral reefs by oil refineries and tanker discharge at Point Noire.

#### Ongoing Environmental Initiatives

#### **Major multi-lateral and bilateral donor-funded projects:**

- The Congo Ministry of Forest, Fish and Environmental Economy submitted a National Plan of Action for the Environment (PNAE) in 1992. (Plan National d'Action Pour l'Environnement (PNAE), Rapport d'Avancement No. 1. Janvier 1992. Prepared by the Ministere de l'Economie Forestiere, de la Peche et de l'Environnement, Direction Generale de l'Environnement, B.P. 958, Brazzaville, Congo.)

The anticipated project life for PNAE is 18-24 months with project initiation in 1992(?) pending approval of funds. Realization of the project will be accomplished primarily by Congolese government employees. By limiting use of outside expertise, the ministry hopes to be more sensitive to national needs and concerns.

The project objectives include studies of the following: the state of the environment, urban environmental concerns, soil degradation, industrial pollution, domestic energy needs, environmental education, GIS and environmental monitoring, economic/environmental relationships, legal considerations, designation of agencies responsible for management of the environment, aquatic environments, and air pollution.

Funding for the project is identified as being provided by the Government of Japan, FAC (la cooperation francaise), the French Ministry of the Environment, PNUE (la programme des Nations Unies pour l'Environnement), USAID, GTZ and the principal petroleum companies operating in Congo. The total project cost is estimated at \$900,000.

-The World Bank and GEF are also implementing a Trust Fund for Conservation. The planning and economic development minister, Mougounga Kombo NGuila announced that the World Bank approved a \$3 m loan to protect certain forest area. The new loan would support a new conservation policy under which these areas will be promoted as wildlife habitats and possible tourism destinations, and hunting will be banned.

The Congo GEF project, called "The Congo Wildlands Protection and Management Project", centers on the renovation of selected protected areas and the establishment of new reserves to adequately protect and manage the biodiversity of plant and animal communities, ecosystems, and the genetic resources of the Congo.

The Congo GEF project will begin with planning and coordination of conservation activities at the national level and focus on three existing reserves (Conkouati, Dimonika and Lfini) and require the establishment of two new reserves (Nouabale-Ndoki and Lac TI-Likoula-aux Herbes). Other areas would be surveyed for later inclusion into the system of reserves.

Recognizing the importance of trust funds, the Bank will place a small amount of the grant into such a fund with the hope that other donors will contribute.

-The Leakey Foundation and Ston ybrook are carrying out gorilla and chimpanzee research.

-The Food and Agriculture Organization has a small fish pond and rice culture project.

-FEDAR, the European Fund for Development of Agriculture, is working in agriculture, road production, road rebuilding, water and sanitation.

-The French Volontaires des Progres are addressing agricultural production.

-The Peace Corps is working with fish ponds and conservation education through the WCS project.

#### U.S. and International PVOs working in the country

-Wildlife Conservation Society has a country office in the Congo and is implementing the Congo Forest Conservation Project with USAID/BSP Funding. It has also proposed a Forestry Training Project with World Bank/GEF Funding.

This project has an implementation schedule of 1991-1996. In addition to USAID/BSP funding, monetary support is also provided by the World Bank, GTZ, GEF, and Japanese grant funding. The GPRC is funding employees from the Ministry of Forest Economy (MFE) and setting aside large areas of virgin forest as national parks and forest reserves. Project objectives include the establishment of the Nouabale-Ndoki National Park (448,000 ha), the development of a park management plan, construction of a viable park infrastructure and intensive research activities linked to long-term management of the park.

Other activities to be undertaken on a national level include training of field biologists, completion of surveys and forestry assessments in other regions of the country and provision of information and advice to appropriate host-country institutions concerned with forest conservation. This will also include the initiation of a national conservation education program.

WCS signed an agreement (Accord de Cooperation) with the Ministry of Forest Economy in 1991 (?). This document assures tax-free status to WCS as an officially recognized NGO. This allows for collaboration in not just the Nouabale-Ndoki area, but across the entire conservation sector. Additionally, the agreement also established WCS as the project manager of the Nouabale-Ndoki Project.

-ECOFAC (European Community) has its headquarters in the Congo and is implementing the Odzala National Park Conservation Project in coordination with the Republique du Congo, Ministere des Eaux et Forets, Direction Faune et Flore. [see "Parc National d'Odzala-Congo Ethnozoologie Faune et Ecotourisme" by Guiselle Carpentio, Jan 1994 (two separate reports)].

The project was initiated in 1992. Information being collected includes the following: an inventory of fauna in the area, an analysis of ecotourism opportunities, and a study of the various indigenous people to determine how traditional customs and lifestyles impact the surrounding natural resources. The project termination date is not indicated, although it is defined as a three phase project with the second phase already completed as of December 1993.

-The UNDP is implementing the Dimonika Man and Biosphere Program.

-The Japanese are supporting gorilla research. In 1992, a memorandum of understanding was signed between Dr. Kuroda of Kyoto University and the Nouabale-Ndoki Project. A key point in this MOU is the requirement for all research projects to pass through the research committee and be accepted before they are allowed to proceed to the funding and implementation stage.

### **3. GABON**

#### Environmental Situation

Of Gabon's 267,000 square kilometers of land, 75-80% is still forested. Much of the richness of Gabon has been preserved because of its extensive petroleum wealth. Gabon diverged upon a petroleum-based economy starting in the early 1970s. Unfortunately, the collapse in petroleum prices in the mid 1980s, coupled with population growth has made Gabon vulnerable to deforestation pressures. Both the timber and mining sectors are being exploited now to replace lost revenues.

In 1961 the French forester Aubreville reckoned Gabon's forest to be the richest in Africa. An estimated total of over 6,000 plant species, of which some 23% are endemic to Gabon have been found within its forests. Coastal evergreen forest blanket the northern lowlands, while closed semi-deciduous forest predominate over the rest of the country. Tree growth is exceptionally rapid due to heavy rainfall.

The original primary forest cover, estimated at about 21 million hectares, has now been reduced to less than 8 million hectares. The most accessible Gabonese forests have been harvested two or three times this century. About 15% of the country is covered by fire climax savanna. Inventories have been carried out on about 6 million hectares over the last 30 years, however a limited number of species were included and sampling methods have been poor.

The three geomorphological zones of Gabon include the sedimentary coastal basin, the central mountains extending north-south through the interior, and the eastern plateau. The first two zones have been almost completely logged at least once in the last century. The third zone has recently been open to railroad access, bringing logging pressure to the area for the first time. In addition to okoume, other economically important commercial species include ozigo, dibetou, padouk, movingui, zingana, kevazingo and ebony. The IUCN estimated that by 1995 the only remaining intact primary forest would be in the far northeast, beyond the third zone and the range of okoume. An FAO study conducted in 1973 concluded that logging this area would be uneconomical unless there were major market changes favoring lesser known species.

Hunting and poaching bushmeat is a major activity in Gabon both for subsistence in the rural areas and to supply the urban market. An estimated four tons of bushmeat reaches Libreville per month. Several animal species are threatened even within wildlife reserves. In general, livestock production is limited to goats and chicken. Cattle are raised in the plantation sector, exclusively in the savanna.

Within the forested zone of the country, agricultural practices can be divided into three basic types: traditional village agriculture, agriculture in new village settlements associated with the government's "integrated zone operations", and plantation-oriented parastatal or French-owned agriculture. The first two practices are primarily shifting cultivation of crops such as cassava, banana, taro, sweet potato, maize and groundnut. They occupy approximately 60,000 hectares. The third practice includes a plantation sector of about 13,000 hectares, on which oil palm, rubber, cocoa and coffee are grown.

### Economic Situation

In 1991 Gabon's per capita income was higher than that of the five other countries in the Zaire River Basin combined. As a byproduct of the petroleum-based economy of the 70's and 80's, rural dwellers abandoned traditional sedentary cultivation for better paying jobs in the oil industry, the expanding public sector, and the construction industry. By 1987, 77%

of the country's food supply was being imported. In 1986, when world oil prices dropped by 55%, oil export earnings in Gabon dropped by 66%. Public service rosters were halved in 1987 followed by salary reductions in 1988 as measures to decrease the public debt. Gabon's petroleum earnings are expected to stabilize in the 1990s as the Riba-Kaunga oil field south of Port Gentil comes on-stream with estimated reserves of 100 million tons of petroleum.

Gabon has three traditional export crops, cocoa, coffee and sugar. Gabon was granted a US sugar quota in 1984 and hopes to increase earnings from sugar based on this. Additional industrial crops include palm oil, rubber and bananas. If Gabon diversifies its economy by moving more into the agriculture and forestry sectors this could sustain economic growth. It is in a stronger position to manage resources for sustainability and greater domestic value-added processing than many of its neighbors.

In the twelve years following independence in 1960, commercial timber extraction dominated the economy accounting for 75% of export revenues, most of which (85%) came from the single species okoume. In 1993 oil accounted for an estimated 81% of exports. Oil export are expected to yield modest GDP growth in 1995.

#### Social/Political Situation

**Overall political situation:** Gabon was proclaimed independent from France in August 1960. The founding father of the Bloc Democratique Gabonais was Leon M'ba who was elected president in February 1961. A coup in 1964 deposed Mr. M'ba briefly but he was reinstated by French troops. On Mr. M'ba's death in 1967 his recently appointed vice-president, Albert-Bernard Bongo, became president and formalized the single-party state. President Bongo (now Omar el Hadj Bongo) was confirmed in office as the sole candidate in elections in 1974, 1980 and 1986. In the mid-1980s, disenchanted Gabonese workers, suffering from the oil recession, began to agitate for reform. Two coups were attempted in the fall of 1988. Labor strikes and protests continues through January 1990, until substantial wage and benefit concessions were granted by President Bongo. A national conference was held in March-April 1990 and a new multi-party constitution and charter were drawn up. The first multi-party elections took place in September-November 1990. The opposition party secured 54 of the 120 National Assembly seats. Executive power rests with the president and the Council of Ministers. Legislative power is in the hands of the 120-seat assembly elected every five years.

Gabon has remained fairly politically stable since the 1960s. Because Bongo belongs to one of the small indigenous ethnic groups of southeastern Gabon, this has helped to counterbalance the numerically predominant northern Fang. The prosperity in Gabon since the 1970s has also helped to maintain political stability. Presidential elections were held in December 1993. The elections were tense, and there was a delay in announcing the results which led to widespread unrest in Libreville. This was exacerbated by the 50% devaluation of the CFA franc on January 12, 1994. President Bongo appointed Paulin Obame Nguema as the new premier. Mr. Nguema has formed a transitional government. The Paris accords have pledged

to prepare a level constitutional and electoral playing field for the opposition in municipal and legislative polls, but there are serious doubts as to how far the PDG will respect the provisions of the accords. The IMF has given fresh backing for the government's economic program and detected progress on parastatal reform. Human rights abuses continue and include security forces mistreatment of illegal aliens, detainees, and prisoners, and legal discrimination and societal violence against women.

**Population trends and impacts on the forest:** The population of Gabon was estimated at 1.01 million in 1993. Its present growth rate is estimated at 3.5% per year, down from 4.7% in the early and mid 1980s. The government presently considers the country underpopulated and the resource base is perceived to be capable of supporting a substantially larger population. For this reason, the government would like to see a 3.0% growth rate by the year 2,000. This policy is intended to lessen dependence upon migrant labor in the timber and oil sectors, and to repopulate rural areas in hopes of stimulating increased food production. Forty-six percent of Gabon's population lives in cities.

Gabon encouraged immigration of foreign laborers between 1936 and 1970. In the late 1970s President Bongo halted further immigration in order to reserve job opportunities for native Gabonese. As of 1988, there were roughly 100,000 foreign nations in Gabon, 10% of the total population. This was followed by the expulsion of 6,000 Beninois in 1977 and 10,000 Cameroonians in 1981. The largest ethnic group is the Fang. The second largest is the Eshira, who, like the Fang, traditionally live in the north of the country. An additional 40 or so other ethnic groups make up the remainder of the indigenous population. Isolated forest communities include the Bateke and the Okande.

The government is trying to stabilize the rural population by resettling villages where agricultural marketing opportunities are the greatest, along transportation routes. Forest dwellers are being enticed out of the forest to settle here: the government is refusing to recognize customary land title and forces villagers to vacate the forest.

### Institutional Structure and Environmental Policy

**Public sector institutions:** Agencies responsible for the forest in Gabon include the Ministry of the Environment (MOE), the Ministry of Forestry and the Societe National des Bois du Gabon. Observers claim that Gabon's forest policy legislation is not consistently applied and lacks effective enforcement. The MOE lacks well-trained and motivated staff, and all of Gabon's 29 degreed foresters are based in Libreville. Conflicts of interest are reportedly common, with many forestry officials maintaining private investments in logging.

Foresters in Gabon lack most of the minimal requirements necessary to carry out their work. Due to budget cutbacks, the Department of Forest Inventory and Management, charged with overseeing and controlling logging activities, has virtually come to a standstill.

**Major policies and policy issues:** Gabon's investment code provides generous incentives for all new investment in key sectors, including forestry, and exempts new forestry operations from income tax for the first two years. Forest tax revenues collected by the treasury in 1984 totalled 133 million CFA francs. These revenues accounted for less than .23% of the value of timber exports and only 19% of the government budget allocated to the forest sector in that year. One reason for this is that the government does not tax okoume and ozigo logs which constitute 85% of the total production handled by the parastatal timber marketing agency. It is likely that some degree of corruption is involved in Gabon's timber regulation and taxation system.

The forest policy of 1982 abolished all previous legislation and includes provisions for reserving production and protection forests, as well as wildlife reserves. All state forest land is to be covered by a forest use plan, and only fully inventoried zones are to be available for logging. Recently the government has proposed increased spending on remote sensing and inventories.

Agriculture is now a priority sector as the government hopes to slow rural-urban migration and increase food and cash crop production both for domestic consumption and for export. The government plans to improve and expand the road network as part of the move to support agriculture and the rural sector.

**Structure of logging industry:** The vast majority of traditional forest concessions have been awarded to French companies. Concessions controlled by the Department of Forestry Production currently cover about 60% of the country. Currently there are no requirements for loggers to engage in reforestation activities. Gabon has approximately 100 logging and wood processing companies. This includes, a large plywood factory located at Port Gentil and five veneer plants. A pulp mill and match factory are both projects which were in the planning stage in 1991. Efforts are being made to diversify the species exported and the market outlets and to increase local processing. World conditions for the sale of tropical hardwoods started to deteriorate in 1991 which caused the Societe National des Bois du Gabon to set a quota system for limiting log production. This system was eased in 1993 and output is expected to benefit from the devaluation of the CFA franc. France is the biggest exporter of Gabonese logs.

#### Ongoing Environmental Initiatives

#### **Major multi-lateral and bilateral donor-funded projects:**

-ECOFACT is working in the Lope Wildlife Reserve with EC funding.

#### **U.S. and international PVOs:**

-WWF has a country office and is implementing the Minkebe, Gamba, and Petit Loango Projects. It is also providing training to the Wildlife Conservation Department [see WWF

brochure]. It has a Wildlife Trade and Conservation Project (UNDP and GEF funding) [See UNDP Project Document]. WWF is supporting a study of the impact of elephants on wildlife and agriculture.

-WCS is studying the impact of logging on elephants and gorillas and doing research management in the Lope Forest (with ECOFAC support).

#### 4. CAMEROON

##### Environmental Situation

Cameroon has a high proportion of arable land, rich and extensive forests, and important energy sources. The climate in Cameroon varies from north to south, with seven to eight months of dry season in the far north and a similar period of rain in the south. The total land area of Cameroon is 475,442 square kilometers, roughly one-third of Cameroon's territory is covered by closed tropical forests. Total forest estimates range from as little as 20 million hectares to 32 million hectares, the lower end would include 16 million ha of dense tropical forest and 4 million of transitional forest. Estimates for deforestation vary greatly, for example, some estimates show deforestation of primary forest at between 80,000-200,000 hectares annually. FAO estimated an annual loss of 1 million hectares of dense forest between 1976 and 1986. Another estimate has 500,000 hectares being cleared annually for agriculture. Increased logging could damage or destroy most of the forest areas by the early 21st century unless fundamental changes are made in land use planning, forest management and reforestation practices. The prospect of large scale release of carbon is arguably more imminent in Cameroon than in any other country of Central Africa.

Timber harvest is said to be very inefficient in that up to 25% of each tree is left to rot in the forest, as only prime parts of the tree are harvested. In addition, many imperfect logs are rejected at the sawmill and poor equipment and training leads to decreased processing efficiency.

The largest areas of forest exploitation are the east and center-eastern regions of Cameroon. New roads to the eastern province are making timber extraction faster and more efficient. In addition, the recently modernized trans-Cameroon railroad system, running from Douala to Ngaoundere facilitates the movement of forestry products including fuelwood.

Cameroon has set aside 2.5 million hectares or 5% of its national territory in protected areas. As in the rest of central Africa, protected areas are often not well patrolled due to insufficient funding and staff, and logging concessions are sometimes granted in these areas. The Cameroonian government proposed expanding the protected area to 20% of the national territory, but due to budgetary crises, this is still on hold.

Wildlife is being threatened by hunting and poaching used to supply urban markets with bushmeat, as well as skins and ivory. Animals which serve to maintain the species mix in the

forest by dispersing seed and serving as pollinators. The ecological implications of the decline of wildlife populations is equally important as the shortage of bushmeat.

Cameroon has 1,000,000 farmers cultivating a total area of 200,000 hectares. Agriculture accounts for 75% of total employment, according to the World Bank. Population densities in agricultural areas increased from 40 persons per hectare in the 1960s to 71 persons per hectare in the early 90s. Fallow periods have shortened and soils are more prone to erosion and degradation. Slash and burn agriculture is still a major contributor to deforestation in Cameroon. In northern Cameroon fuelwood is in short supply. Agroforestry with the aim of improving soil fertility could help to halt shifting cultivation, but this would not be feasible without policy changes recognizing traditional land rights.

Roughly 30% of the rural population is involved in raising livestock, providing about 15% of total agricultural production. Even so, 25% of national meat consumption is imported. Each year Cameroon imports 100,000 cattle on the hoof from CAR and Chad. Livestock production is centered in the north and far north, but natural rangeland could support much larger numbers of cattle provided that veterinary and extension services were made available.

Fishing production accounts for 17% of agricultural output. This is equally divided between deep ocean commercial catches and artisanal fishing. The inland commercial fish industry accounts for only 10% of total fish production, roughly 100,000 tons.

### Economic Situation

Cameroon is relatively prosperous with one of the highest levels of per-capita income in Sub-Saharan Africa. A robust petroleum industry began in the 1970's, however, the 1986 oil price decline has led government planners to look to the timber industry in order to offset oil revenue shortfalls. The Sixth Plan (1986-1991), includes a Tropical Forestry Action Plan calling for investment of \$136 million in the forestry sector over the next five years. Increased timber exports would open up new areas for commercial exploitation in the southern part of the country. A total of 58 different projects in forestry, land use, and forest-based industry constitute TFAP's ambitious plans to double the annual cut of roundwood to 4 million cubic meters by the year 2,000, and 5 million cubic meters by 2010.

Cameroon's tropical timber exports account for approximately 21% of all exports. Two-thirds of the timber is in the form of raw logs and the remainder is processed as sawnwood, plywood or veneers. Most of the GOC logging revenue is derived from export taxes, bids and licenses. Value-added processing of wood is said to be economically inefficient in Cameroon because poor processing technology consumes a large amount of the raw logs.

The traditional agricultural sector accounts for 90% of total food production and 80% of commercial (marketed) production. The modern agricultural subsector includes parastatal societies that dominate certain crops such as oil palm. Major export crops are coffee, cocoa, cotton, palm oil and rubber. The prices of coffee and cocoa have plummeted recently in the

world market as consumer tastes shifted away from robusta in favor of the milder arabica beans and Asian and South American suppliers of both cocoa and coffee have increased production.

In response to the economic decline the World Bank approved a \$150 million structural adjustment loan, on condition that the government restructure state enterprises and parastatals, liquidate a number of government programs, and privatize many institutions. Lay-offs and wage cuts have been implemented as part of the reform, but have brought civil unrest and political turmoil.

Cameroon has very close economic ties with France through membership in the Franc Zone. In 1992 and 1993 France softened its previously firm stance on structural adjustment and performance criteria, providing funds on occasions to enable Cameroon to pay off its arrears to the World Bank and the IMF. The departure of President Ahidjo sped up the formation of the Communauté économique des états de l'Afrique centrale. The CEEAC could do much to boost Cameroon's trade in the region and greatly increase the scale of its markets, particularly since its economy is more developed than many of the other community members.

The best hope of alleviating Cameroon's economic problems, while at the same time safeguarding the forest resources as much as possible appears to lie in the form of increased agricultural productivity. The country's innate agricultural wealth as well as its existing expertise gives it a big advantage over neighboring countries in producing crops and getting them to market and port.

### Social/Political Situation

**Overall political situation:** Cameroon has had three colonial masters. In 1884 the German Kamerun Protectorate was set up and lasted until 1916. The Germans were deposed by a combined force of Franco-Belgian-British military. After the First World War four-fifths of the territory was granted to the French and one-fifth to the British. After the Second World War and French constitutional reforms, political parties formed in the territory. In 1960 the Republic of Cameroon gained its independence from France under the leadership of Ahmadou Ahidjo. The République unie du Cameroun came into being on May 20, 1972, with two official languages, French and English. In 1982 Mr. Ahidjo resigned unexpectedly and handed over the presidency to Paul Biya. In April 1984 a coup was led against Mr. Biya's leadership, however it was unsuccessful. Following the coup there was a sweeping shake up within the presidency, the civil service, ruling political party and public sector. In early 1990 the wave of social agitation for multi-party politics swept through Cameroon. Attempts to form political parties were initially repressed, however after violence in pro-democracy demonstrations in May, a law providing for the formation of political parties was passed in December. Legislative elections took place in March 1992 at which time there were 48 recognized parties, only three of which showed strength in the election. Presidential elections were held in October 1992. Mr. Biya claimed a narrow victory against Mr. John Fru Ndi of the SDF and Mr. Maigari, however Mr. Fru Ndi as well as some foreign

observers claimed ballot rigging. Currently the political situation is tense. The government continues to make arbitrary arrests of political opponents and members of the independent press.

The EIU outlook for 4th quarter 1994, says "The president has appeared consistently out of touch. The dispute with Nigeria over the Bakassi peninsula has continued. The IMF stand-by credit agreed to in March remains suspended although the World Bank has granted fresh loans. Civil service redundancies and privatisations have caused controversy. Anglophone groups are still unhappy with the government. There has been further turmoil in the banking sector. Manufacturing exports have reacted well to the devaluation, but trade within the Franc Zone has been disappointing.

**Population trends and impacts on the forest:** In 1992 Cameroon had a population of approximately 12.2 million, with nearly half living in urban areas. The annual growth rate is estimated at between 2.9 and 3.5%. Cameroon will have nearly 16 million people by the turn of the century. In the western provinces the population density is already 200 people per square kilometer, the eastern province, by comparison, has a density of only 3 people per square kilometer. Birth control has only recently (1987) been legalized. Official reports indicate that modern contraceptive use among married women of childbearing age is less than 3%. The rapidly increasing population is likely to place high demands on forest resources through the need for higher agricultural production, more fuelwood and building material, and through land clearing for new settlements, roads and other economic developments.

The major ethnic groups of Cameroon include Bantu peoples of the central part of the country, northern groups of Sudanese, Foulbe, Hausa and Arab Choa, and the western groups of Bamileke, Tiker and Bamoun. Below the Bantu line live tribes such as the Eton, Ewonda, Boulou and Fang. The coastal plains around Douala are dominated by Bassa, Douala and Bakoko peoples. The forests of the south are still home to some pygmy groups.

#### Institutional Structure and Environmental Policy

**Major policies and policy issues:** Despite Cameroon's reforestation law, which requires companies to pay a reforestation tax to finance government replanting, little reforestation actually takes place. Since logging licenses are limited to a period of two to five years, there is little incentive for companies to introduce sustainable forest management practices. Government foresters hold little real authority and are responsible for unrealistically large geographic areas, therefore they are largely unable to cope with a rapidly growing logging industry.

The GOC established a national sedentarization policy to relocate forest dwelling people (approximately 20,000-35,000) to agricultural areas. This would make the forest dwellers contributing members of society (taxpayers), however, it ignores the traditional role that these people play in maintaining the forest.

**Structure of logging industry:** The logging industry in Cameroon concentrates primarily on a handful of commercial species such as azobe, ayous, sapelli and sipo. After loggers have removed the valuable forest species, the forest is considered degraded and farmers are permitted to convert the remaining forest for agricultural use. Logging occurs through large-scale industry as well as small-scale activities, which supply local sawnwood markets. Small-scale logging is less regulated than large industrial production units and is believed to take a higher volume of timber per hectare, cutting all commercial species regardless of diameter and not leaving seed trees.

The World Bank is insisting on increased transparency in the taxing and granting of licenses for timber operations. A new forestry code was put before the Assemblée nationale in December 1993, but it was extensively modified before adoption in January 1994. The wood industry is currently reaping the benefits of a 15% rise in world timber prices in recent months (Dec. '94), however, a boycott may be placed on world sales of four of the country's main wood species (sipo, mahogany, afromosia and bosse). The CITES conference debated the issue of increased vertical integration in Africa's timber industries, where most of the wood is exported in log form.

**Status of environmental NGOs in the country:**

-The PVO/NGO NRMS Project is active in Cameroon.

Ongoing Environmental Initiatives

**Major multi-lateral and bilateral donor-funded projects:**

-ECOFAC is supporting the management of the Dja Wildlife Reserve.

-The Canadians are providing technical assistance in forestry to ONADEF.

-Forest inventories have been or are being conducted by the Centre National de Developpement des Forets and the French government.

**U.S. and international PVOs:**

-World Wildlife Fund has a country office. It is implementing projects on/in:

-Elephant conservation with US Fish and Wildlife Service funding. (WWF project sheet: Regional Forest Conservation in Lac Lobeke, Oct. 1993)

-Analysis of sustainable logging. (WWF topic sheet: Focus on Forests, Sept 1994)

- Rhino conservation in northern Cameroon. (WWF project sheet: Program for the Protection of the Western Black Rhinoceros, Oct. 1993. WWF 1993 Annual Report, p.15. WWF topic sheet: Sustaining Protected Areas, Habitats, and Species, Apr. 1994)
- Mount Kilum Park Management.
- Conservation & environmental education with the Mount Kupe Project in collaboration with Birdlife International (UK).
- Reserve management in SE Cameroon (with GEF funding)
- Protection of Dja Reserve (Dutch funding)
- Protection of Mangroves, Rio del Ray (GEF and GTZ funding)
- Park management in Korup National Park (ODA and EC funding)
- Wildlife Conservation Society is carrying out biodiversity research in Korup National Park. (WCS Program Profile: African Forests Program, E. Graham, p.10)
- WCS completed a biological and social survey in Southeastern Cameroon with BSP funding.
- The BSP Project also supported remote sensing efforts with the government of Cameroon (ONADEF).
- The Smithsonian is carrying out a Botanical survey.
- The British government (ODA) in collaboration with GTZ is managing the Limbe/Mt. Cameroon Project with offices in Limbe and Buea. The project includes botanical collections from Mt. Cameroon, an educational program and a new ('94) conservation and development program.
- University of Maryland/NASA-Goddard and the USGS are collaborating on remote sensing work in Central Africa.

## 5. EQUATORIAL GUINEA

### Environmental Situation

Equatorial Guinea consists of five islands and the much larger mainland area totaling 28,051 square kilometers. The capital is located on the 2,000 square kilometer island of Bioko, 20 miles off the coast of central Cameroon in the Gulf of Guinea. The mainland province of Rio Muni is 26,000 square kilometers. The major natural resource of E.G. is timber. Most of the productive forest is located in the province of Rio Muni. Six timber species (okoume,

akoga, elondo, ayus, akom and calabo) account for 80% of export production. In 1988 two concessionaires were granted permission to negotiate with individual cocoa plantation owners to fell specific trees on their property, however, traditionally, trees have not been logged commercially on Bioko.

Colonial surveys and other sources suggest that between 1.3 million and 2.2 million hectares is forested. Of this, over 40% has either already been logged or is currently under logging production. FAO/UNDP began a forest inventory project in the early 1990's. The Spanish set aside 700,000 hectares in national parks and reserves, but they have not been protected since independence (1963). Standing commercial volume ranges from 5 cubic meters per hectare on previously logged areas to 40 cubic meters per hectare in productive unlogged forests. The commercial resources of the forests are expected to run out in less than 35 years unless something is done to change current forest use practices.

### Economic Situation

Until independence the plantation sector drove the economy with exports of cocoa and coffee. Cocoa production dropped from 38,000 tons in 1967 to 4,500 tons in 1980. It now accounts for 31% of the country's exports. In 1988, the agricultural sector (including fisheries and forestry) accounted for 58% of the GDP and employed 80% of the labor force. One of the first moves of the new president (Pres. Obiang) was to turn the plantations over to two Spanish agribusinesses to rejuvenate the industry. At present, just one-third of the land that was in cultivation at the time of independence is in active production today. The World Bank estimates that approximately 1,000 people are employed in the timber sector. Equatorial Guinea's first oil exports took place in 1992.

The vast majority of traditional production (cassava, cocoyam, sweet potato, banana) is carried out through shifting cultivation, mainly on the continent in Rio Muni. An estimated 3,000 ha are cleared each year for cultivation of food crops. Fallows have been decreasing due to rural labor shortages, with resultant loss of fertility and erosion. Rio Munians rely heavily on subsistence agriculture and revenues from small-holder coffee production. The population of Bioko relies extensively on revenues from the export of cocoa, the country's number one cash crop. Food became extremely scarce in the years of the Macias dictatorship, but the situation improved markedly in the 1980s. In 1991 E.G. imported some 15,000 tons of cereals, of which about 3,000 tons were food aid. Increasing emphasis is being placed on the export of foodstuffs to neighboring countries such as Gabon.

Poultry raising is the dominant livestock activity. The small cattle industry is centered on the island of Bioko. Nearly all meat products are imported. The country has a large maritime zone, with the best fishing areas around Annobon.

In 1983 the World Bank approved a cocoa rehabilitation project. In 1985 the country entered into the Franc Zone, the IMF granted a credit and the Paris Club rescheduled debts totaling \$38 million. In late 1988 the Fund agreed to a three year Structural Adjustment Facility and

a roundtable of donors pledged \$58 million in aid. The governments inability to maintain a functioning taxation system and routine overspending have led to the suspension of SAF disbursements since October 1993. At that time as well, the World Bank was considering pulling out of E.G. because of the government's "absolute lack of accountability".

### Social/Political Situation

**Overall political situation:** Equatorial Guinea gained its independence from Spain in 1968. There was no tradition of democratic politics or basic human rights related to the Spanish colonization and when the Spanish left Francisco Macias Nguema Biyogo, a Fang of the Esangui clan, converted it into a bloody dictatorship. Power was concentrated in the hands of the Esangui clan. During Macias's rule he brought E.G. close to bankruptcy and about a quarter of the population left the country. The Spanish community was reduced from 7,000 people to 100 by 1979. The property of Spanish nationals and firms was nationalized and bureaucrats were appointed to run the cocoa plantations and forestry concessions, with disastrous economic consequences. In October 1979 President Macias was overthrown by his nephew Lieutenant Colonel Teodoro Obiang Nguema M'basogo. After the trial and execution of his uncle, President Obiang stabilized the country's politics despite the fact that there was little change in the personnel of the state apparatus and the armed forces. The president has not ended the political domination of his close relatives, the corruption in the state apparatus or human rights abuses.

The country is nominally a republic in transition to a multi-party democracy. The first multi-party elections to the legislature were scheduled for July 1993. They were postponed by the president but eventually took place in November 1993. The majority of the population boycotted the elections as part of the Plataforma de Oposicion Conjunta, a group of seven dominant opposition parties. Estimates of the extent of the boycott ranged from 50-80%. Formal election results gave a total of 12 seats in the expanded 80-seat Camara de Representantes del Pueblo (CRP) to the opposition described as loyal to the regime. Prime Minister Siale Bileka drew a new government solely from the ranks of the ruling party, awarding key portfolios to close associates and family of President Obiang. After the election most key opposition leaders had no choice but to return to exile in Spain because of threats (and actions) of government harassment and torture.

**Population trends and impacts on the forest:** Only one national census has been taken since independence and its accuracy is in question, however the population is estimated at 360,000,000 people (1991), with an annual growth rate of 2.3%. The majority of the population of Rio Muni (80% of the national population) belongs to the Fang ethnic group, which also populates contiguous areas in Gabon and Cameroon. The 19% of the populace residing on Bioko is primarily of the Bubi ethnic group.

Currently the government's stated policy is to increase immigration rates and fertility levels. In addition, they would like to decrease rural-urban migration through rural development programs.

## Institutional Structure and Environmental Policy

**Public sector institutions:** The Ministry of Agriculture, Range, Waters and Forests is responsible for the forest sector, but allocates only 1% of its budget for the forest department.

**Major policies and policy issues:** While the government assesses concessionaires a reforestation tax of 1,000 CFA for each cubic meter of wood harvested, this revenue is often allocated to other projects considered more urgent.

**Structure of logging industry:** Specific obstacles to harvesting logs include, labor shortage, lack of skilled labor and shortages of imported spare parts and equipment. An additional disincentive is the constant demand for free processed wood by government agencies and officials, as well as high forest fees and taxes. The EC has provided funds for training in forestry since E.G. is lacking in trained forest staff.

Timber comes mainly from the western parts of Rio Muni close to the sea. Some 2.2 million ha are forested of which about 800,000 ha are suitable for commercial forestry. At present it is thought some 2,500 ha of forest are being cut down every year without any systematic replanting. About two-thirds of the estimated cover is composed of okoume, but the world market for this wood is saturated. The other main species of commercial timber are akoga, akom, ayus and calabo. International protest at the lack of reforestation is growing and may seriously hamper the future of the industry.

At the end of 1990 there were 11 timber companies active in Rio Muni, holding 14 concessions covering some 459,000 ha, while two companies held concessions totaling 40,000 ha in the south of Bioco. The company with the largest market share in 1990 was Matransa, with 21% of exports, followed by Exfosa with 20% and EFGE with 17%. Most of the capital invested is Spanish, although a sizeable stake is held by Italian, Lebanese, Israeli and local interests.

Companies complain that standard five-year concessions are too short for amortisation of their substantial investments. Port charges are high and yet frequent delays mean that wood deteriorated on the quayside. Fuel cost, which account for nearly a quarter of company costs, are higher than in neighboring countries. Roads are inadequate (too narrow). Lack of long-term credit facilities is another problem with many companies forced to run expensive overdrafts.

## Ongoing Environmental Initiatives

### **Major multi-lateral and bilateral donor-funded:**

- FAO/UNDP recently launched a program to promote farm and community planting on 10,000 hectares. Another pilot project, with technical assistance provided by AIF is promot-

ing alley cropping, small livestock husbandry and composting to slow the spread of slash-and-burn cultivation.

## 6. ZAIPE

### Environmental Situation

Zaire possesses between 70-100 million hectares of closed tropical forest. The upper estimate is roughly half of the continent's total tropical forest. The country also contains large expanses of savanna and savanna woodland, as well as remnants of gallery forest. Zaire's 2.3 million square kilometers contain the world's largest river basin network and its second largest remaining tropical forest. About 30% of the forest in the central basin is seasonally flooded or in swamp forests. Three thousand of Zaire's estimated 10,000 plant species are endemic, and the eastern highlands are considered the richest bird habitat in Africa. National parks and wildlife reserves cover some 21 million hectares countrywide. The parks and reserves suffer from a lack of management and protection.

Government plans call for the development of areas around logging and processing facilities to attract migrants from more heavily populated regions. Soil erosion could increase if inappropriate farming methods are used and there will likely be increased hunting and poaching of wildlife.

Agriculturally-linked deforestation occurs in all four regions of Zaire. The Central Basin of the Zaire River, which is marked by high rainfall and supports a closed canopy rain forest, is generally considered unsuitable for annual cultivation. The Bantus and Pygmies clear small forest plots here. Plantations of palm oil, coffee and cocoa are found in this region. The transitional forest zone to the north and south of the central basin has generally fertile soils, but reduced fallow periods are leading to declining yields. The tropical montane region of the east has fertile soils which are subject to erosion. A wide variety of food and plantation crops are grown here and because of dense populations problems associated with short fallows and degraded forests are prevalent here. The gallery forest and savanna of southern Zaire has sandy, acidic soils and the area is a net importer of food.

### Economic Situation

Zaire is one of the poorest nations in the world, with a per capita GDP of \$260 in 1987. A variety of factors have contributed to this dismal economic performance since independence including mismanagement, corruption, poorly implemented development projects and deterioration of the colonial era infrastructure. Foreign investment has been deterred by fears of political instability and ethnic tension. There are shortages of most basic commodities, and prices for available goods are very expensive. Political and social events since 1991 have compounded the country's already difficult economic situation and led it to a state of distress and collapse.

An increasing portion of the economic life of Zaire is taking place in the informal sector in which transactions are seldom observed much less regulated and taxed. Zairian business are chronically at the mercy of threats such as power failures, communications breakdowns, transportation shortages, predatory officials and lack of foreign exchange to secure spare parts. The prevailing business strategy is to stay small enough to avoid undesirable attention, while diversifying in order to minimize dependence on a single source of income.

Before independence, management of the economy was directed towards providing raw materials for industry in Belgium. Since 1988 a majority holding of the Societe Generale de Belgique, once the commercial arm of Belgian colonial interests, has been held by France's Suez group. The task of attracting fresh investment in Zaire has proven extremely difficult. Effective control of the economy has escaped the government since 1991. The IMF declared Zaire ineligible for funds in 1991 and suspended the countries voting rights in June 1994. The World Bank withdrew its resident mission in January 1994 after suspending all loan commitments. Opposition parties have opposed immediate privatisation for fear that the proceeds would benefit the president and the armed forces.

#### Social/Political Situation

**Overall political situation:** The independent state of Congo became a Belgian colony in 1908. In the mid-1950s the Belgian authorities released a plan for the enfranchisement of the colony over a 30-year period. The plan was rejected by Zairians and protests forced the Belgian government to reconsider the timetable for independence. Congo was granted its independence in June 1960. Mr. Kasavubu was appointed president and Patrice Lumumba prime minister. Belgian withdrawal was abrupt and Zaire was ill-prepared to govern itself. General Mobutu Sese Seko, head of the army suspended political institutions in September 1960 before reinstating Mr. Kasavubu as president in February 1961.

In November 1965 General Mobutu seized power in a bloodless coup with support from the USA. General Mobutu was elected unopposed to three seven-year terms in office in 1970, 1977, and 1984. The Mobutu presidency brought the country an element of stability by reducing the influence of ethnic and regional forces, but it also fostered corruption and repression. In April 1990 the president unveiled a program to convert Zaire into a multiparty state and he appointed a government in May which included only two members of the previous administration. Political parties blossomed and in May 1991 they forced the government to hold a constitutional conference. In September 1991 groups of soldiers revolted in protest over salary arrears and government failure to honor a promised pay increase. Civilians joined them during October and many people were killed and property was destroyed. This prompted the evacuation of large numbers of expatriate residents. President Mobutu appointed Etienne Tshisekedi as prime minister, but soon replace him with Nguza Karl I Bond in November 1991. Nguza suspended the January 1992 national conference, but it was resumed in April under the chairmanship of Monsignor Laurent Monsengwo Pasinya. The conference elected Mr. Tshisekedi as prime minister in early August. In January 1993 the president called for a transitional government that would be

representative of all regions and all political trends. Another military uprising at the end of January led to the death of up to 1,000 people. In late March Zaire found itself with two governments, two constitutions and two parliaments--but not an effective state. In June, President Mobutu agreed to have a UN special mediator help resolve the problems. Negotiations broke down with no solution in December. In January 1994, General Mobutu dismissed both the Birindwa cabinet and the Tshisekedi government. Joseph Kengo was elected as the new prime minister in June 1994, winning a 72% majority in the transitional parliament.

The Kengo government has been trying to re-establish the authority of the state, to gain control over the military and over monetary policy and to break Zaire's diplomatic isolation. It has only been successful in the last point so far. The crisis induced by inflow of more than a million refugees since July has taken dramatic proportions, with abuses by Zairean and Rwandan troops compounding miserable conditions. The government has announced many drastic economic and financial measures but it is unclear how they will be implemented.

The climate of political reform is strongly affecting Zaire. Press freedom is greater than ever and President Mobutu is under growing pressure to make significant concessions to the political opposition.

**Population trends and impacts on the forest:** Zaire's current population is estimated to be 36 million. It is Africa's most ethnically diverse population, with over 200 ethnic groups speaking more than 40 Sudanese and Bantu languages. The population is growing at roughly 3.1% per annum. By the year 2025 Zaire is projected to have approximately 100 million people. At present, the average population density is less than 15 persons per square kilometer, however, this is misleading as one-third of the land area accommodates approximately 70% of the population.

Zaire's population is concentrated in three zones of relatively high density. The southern band extends from the mouth of the Zaire River northeastward through the capital of Kinshasa and then southeast across the southern portion of the country to the eastern frontier. Altogether over 40% of Zairians live in this zone.

The second zone, known as the "axe du 30eme merdien" starts at the northwest edge of Lake Tanganyika, extending north through Zaire's most heavily populated area, the Kivu region, to Bunia in the easternmost upper-Zaire before turning west to include the coffee growing region around the city of Isiro.

The third zone is situated in the northwest corner of the country radiating from the city of Gemena. Other pockets of high density exist around the cities of Mbandaka, Kisangani and Lubumbashi.

As of 1989, 40% of the population, roughly 15 million people, lived in urban areas. While urbanization is swelling Zaire's cities, there is substantial movement into the interior. This

trend is expected to swell with the completion of the Bukavu-Kisangani road. This is likely to open up new areas to logging and itinerant agriculture.

In mid-1989 there were an estimated 345,000 refugees living in Zaire, most of whom fled the civil war in Angola. Eastern Zaire also contains significant refugee populations from its Rift Valley neighbors, most recently from Rwanda, as well as Burundi and Uganda. Other refugees have come in from southern Sudan.

### Institutional Structure and Environmental Policy

**Public sector institutions:** Zaire has a variety of autonomous agencies with responsibilities for managing different aspects of the forest sector. None is sufficiently staffed or funded and there is no history of collaboration between agencies. The number of trained forestry professionals and para-professionals is very limited. In the 1980s there were 60 degreed foresters and 145 sub-professional forestry technicians.

The principal land management agencies and departments include the Department of Land Affairs, Environment and Nature Conservation, which is responsible for the management of forested land, the Department of Environment, Conservation of Nature and Tourism, which promotes logging and exports, the Department of Rural Development which is involved in extension work and agroforestry research, and the autonomous Zairois Institute for the Conservation of Nature, which manages the national parks and nature reserves under the auspices of the Ministry of the Environment. This last has limited capacity to manage closed forests and buffer zones.

Forest inventories are being carried out to facilitate the administration of logging concessions, reportedly at the rate of one million hectares per year. The agency SPIAF is preparing a forest map at a scale of 1:400,000 from satellite images. Approximately 19 million hectares have been inventoried to date. Remote sensing and mapping work is also being carried out by a variety of other agencies including ERTS-Zaire, the Bureau d'Etudes et d'Amenagement Urbain (BEAU) and the Service Presidentiele d'Etudes (SPE).

**Major policies and policy issues:** All land belongs to the state except in certain cases in urban areas. In rural areas, land cannot be privately owned and trees are considered the property of the state by virtue of being on the land. This situation provides little incentive to rural populations to protect trees or to participate in planting programs.

Legislation divides the forest into two main types: classified forest and protected forest. Protected forests can be cleared for agriculture. Restrictions on human activities mainly apply to classified forests which include reserves, managed forests and areas slated for reforestation.

**Structure of logging industry:** Zaire has 1.78 million square kilometers of forest area. The business community came alive to the sector's potential in the early 1980s and annual

deforestation affected 3,700 square kilometers between 1980 and 1985. Output of logs stood at 290,725 cubic metres in 1991 down from 448,570 cubic meters in 1990. The fall in output is blamed on the deterioration of the transport system and paralysis in the rest of the economy. Estimates of standing commercial volume vary by region and range from 20-36 cubic meters per hectare.

About 100 timber companies work in Zaire, the two major ones being Siforzal (Germany) and Forescom. In 1985 the government introduced regional quotas and new regulations under which exporters must have established (or intend to establish) processing capacity in order to obtain operating licenses. Logging concessions are awarded based on an application accompanied by an inventory of the commercial species in the area and an investment plan for processing facilities. Concessionaires are nominally responsible for providing certain infrastructure for the benefit of nearby rural communities.

Government forestry administration focuses primarily on the large-scale industrial sector. The often over-looked artisanal sector produces an about 1.5-2.0 million cubic meters of timber and sawnwood annually for local markets. Fuelwood production is estimated at 25-35 million cubic meters per year. Its volume dwarfs industrial logging and is subject to few if any regulatory or monitoring requirements.

Export taxes have been lifted on processed wood,, but continue to be imposed on raw logs. High grading is the norm. High value species include sapelli, sipo, tiama, kosipo, iroko, tola, bosse clair, limba, dibetou and wenge. Most concessions are located near rivers to facilitate log transport, especially in the central basin.

#### Ongoing Environmental Initiatives

##### **U.S. and international PVOs:**

-WCS was working in the Ituri Forest with USAID and World Bank funding and is doing a forest and gorilla survey in Eastern Zaire.

-WWF is also working in the Ituri Forest (management/planning/education); park management and education in the Virunga National park; protection of the white rhino in Garamba National Park; and conservation education in Kahuzi Biega national Park.

-Harvard University is supporting research in the Ituri Forest. Yale and Stonybrook universities supported Pygmy Chimp research.

-USAID is funding a remote sensing study on the evolution of the tropical forest being carried out by the University of Louvain in Belgium.

-Conservation International previously worked in Zaire and produced a report titled, "Conservation International: Strategy for Conservation in Zaire" dated April 1990. They are not currently active in Zaire.

## **ANNEX D. ECONOMIC ANALYSIS**

### **Magnitude of Project Effort**

Many of the activities proposed for the CARPE project do not lend themselves to conventional economic analysis. This includes important (but difficult to quantify) interventions such as capacity-building, technical support, policy reform, regional planning, donor coordination, research and information dissemination. The appropriateness of the overall level of effort of the project can be considered in the light of the magnitude of the problem of deforestation in the Central Africa region, and by understanding CARPE as an investment in a long-term process of improving resource management and reducing unnecessary ecosystem degradation. From 1981 to 1990, the rate of deforestation in the region averaged more than one million hectares per year (FAO 1992), and this trend could accelerate due to population growth, stagnant economies, weak resource management regimes, and lack of alternative sources of livelihood. The U.S. government has identified the central Africa region as a globally significant site of current and potential deforestation, climate change, and loss of biodiversity.

The proposed CARPE budget level of approximately \$14 million over five years represents a very modest investment in relation to the magnitude of the problem. For example, commercial logging for export markets has been identified as a major contributing factor in long-term forest loss: the region's timber exports, which stood at \$630 million in 1992, dwarf the proposed USAID intervention. From 1989 to 1992, a period of just three years, timber exports from the six CARPE countries rose by more than \$174 million, according to FAO data. The devaluation of the CFA in early 1994 has stimulated a further increase in timber exports, according to World Bank sources.

A related issue to be considered in this context an appropriate level of project effort concerns the absorptive capacity of institutions within the region with which CARPE will be working. While there are probably few capable of efficiently managing activities approaching the scale of the CARPE project, major responsibility for CARPE activities will be vested within U.S. organizations experienced in management of USAID funds, i.e. WWF, WCS, the Biodiversity Support Program, and so forth. Most of the other CARPE transactions, for example activities carried out by local NGOs, will be handled through the BSP grants program and will be set at levels appropriate to the task and the capacity of the respective institutions.

Other major environmental projects within the region provide a sense of the scale of budgetary levels currently being dedicated by other donors in this sector. Among the largest recent interventions is the Congo GEF project, "Wildlands Protection and Management," which allocates some \$10 million for conservation in a country with a total human population of less than 2 million. The European Union ECOFAC program includes protected area activities in six central African countries, with a total Phase I budget level of 24 million ECUs (approximately \$25 million). The proposed CARPE budget is among the larger

environmental investments in the region. Yet, when considered on a country-by-country basis, and taking into account the sum of multilateral, bilateral, and nongovernmental investments, it represents a modest level of resources. In this perspective, the CARPE budget should be understood as a focused investment in strengthening central African resource management capacity, rather than as a disparate set of small-to-medium-scale conservation interventions across a very large geographic area.

### Size of the Commercial Forestry Sector

To give a better sense of the importance of investment in better natural resource management and conservation in central Africa, it is useful to characterize the current forest sector, admittedly at a very rudimentary level. One of the few recent attempts to do this is found in BSP's 1993 report, which noted:

"Together with exported pulpwood, the value of [timber] exports amounted to US\$ 456 million in 1989 with the unit value ranging from \$39 per cubic meter for pulpwood to \$812 per cubic meter for finished plywood." (BSP 1993, Central Africa: Global Climate Change and Development; Vol. 3 Technical Report, Part II, p.38)

Estimated employment levels in the forest sector were estimated by BSP at over 150,000 persons, including:

- full-time formal employment of approximately 40,000;
- commercial fuelwood employment above 100,000;
- total including retail & distribution above 150,000 persons.

(BSP *ibid.*, Part II p. 28)

With the drop in petroleum revenues since 1986, the timber sector has regained the importance it had prior to the emergence of the oil industry. This fact is illustrated by the following data, taken from FAO data:

#### Rise in Forest Product Exports, 1989 to 1992

	1992	'000 US dollars 1989	increase/decrease	(%)
Zaire	41,116	18,391	22,725	+81%
Cameroon	269,527	99,833	169,694	+170%
Congo	149,608	142,783	6,825	+5%
Gabon	124,850	156,004	(31,154)	-20%
CAR	15,372	20,273	(4,901)	+24%
Eq. Guinea	29,959	18,499	11,460	+62%
region	\$630,432	\$455,783	\$174,649	+38%

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(from Rome: FAO 1994; Forest Products Yearbook, 1992; p. 278)

### **Opportunity Cost Assessments**

Despite the difficulty of conducting economic analysis of the CARPE project as a whole, conservation activities on specific field sites can be subjected to economic techniques such as opportunity cost assessment. In the case of the WWF Dzanga-Sangha project in CAR, Telesis USA Inc. has carried out an economic analysis of logging and alternative activities such as tourism, safari hunting, and harvesting of non-timber forest products including medicinal plants and zoo animals (Telesis USA: "Sustainable Economic Development Options for the Dzanga-Sangha Reserve, Central African Republic;" 1991). This assessment found that a balanced approach combining a variety of non-consumptive uses was economically superior to the resumption of logging in a remote timber concession area chronically subject to boom-and-bust cycles and dependent on direct and indirect government subsidies. Further, the ecological degradation resulting from economically-pressed logging operations represents another long-term justification for managing the Dzanga-Sangha area for non-consumptive uses (Telesis op. cit.).

USAID's SAVEM project ("Sustainable Approaches to Viable Environmental Management") in Madagascar has gone further, by estimating the value of standing timber on forests proposed to be brought under protected area management (SAVEM Project Paper 687-0110, 1990, Annex VI C. "Economic Analysis," pp. 212-233.). According to the SAVEM analysis, "the only truly quantifiable alternative use for natural forests is the productive value of its wood" (SAVEM, p.215). The sustainable yield of timber for a given forest area would therefore be the benchmark against which to measure the economic justification for alternative investments. Good quality (non-degraded) forest land in the eastern coastal natural forest area was calculated to represent a standing value of \$1,600 per hectare, while a sustainable yield from such a site would be about \$160 per year. Thus a 40,000 ha. national park financed by the SAVEM project would represent a value of \$64 million (40,000 ha. X \$1,600) (SAVEM p.215). The SAVEM project would invest some \$10 million in six protected areas, totalling roughly 240,000 ha., with an aggregate presumed value of \$384 million for the resources being protected as a consequence of this investment (p.215, 231).

The annual cost of brushfires and forest clearing could then be calculated and compared to the costs of implementing protected area systems. The analysis was further extended to the calculation of such economic benefits as intensification of agriculture, introduction of agro-forestry techniques, road-building and other infrastructure development, and tourism. The SAVEM project would carry out opportunity cost assessments in the case of specific conservation investments, and cost-benefit calculations on a case-by-case basis for certain types of development (i.e. road-building) investments over the course of the project (SAVEM p.227).

No analysis has been found by the CARPE project design team which attempts to calculate the economic costs of environmental degradation and deforestation in the Central Africa region as a whole, although Ruitenbeek has described several approaches for the valuation of environmental services and their loss in Cameroon's Korup National Park (H. Jack Ruitenbeek, "Economic analysis of tropical forest conservation initiatives: examples from West Africa;" pp.241-269, in Cleaver, Kevin et al, eds., *Conservation of West and Central African Rainforests*, World Bank Environment Paper No. 1, 1992).

According to Ruitenbeek's analysis, the net benefits of logging in Korup forest over a 30 year period, discounted to the present, represent an annual value of 350 million CFA. Set against this are the gradual loss of ecological services such as watershed protection and soil productivity, as well as other foregone revenue streams from tourism and related economic activities. The total present benefits from conservation in Korup are calculated at a level of 6,850 million CFA. Since the proposed WWF project in Korup would cost less than the difference between these two sums, i.e. 6,500 million CFA, the result of the analysis justifies the conservation investment in purely economic terms:

"...the aid community is being requested to transfer some 3,800 million FCFA to Cameroon in the form of financial and technical assistance; the resultant benefits to Cameroon of conservation will be greater than those from allowing continued conversion." (Ruitenbeek, p.258)

Economic analysis of this type can be carried out on a case-by-case basis as the CARPE activities are identified, as in the earlier cases of Korup and Dzanga-Sangha. This is not feasible for the CARPE program as a whole, however, which covers six countries with some 2 million km<sup>2</sup> of forest and which will support a wide range of technical and policy interventions yet to be specified.

Following the example of the earlier SAVEM project, however, a very preliminary indication of some of the opportunity costs of deforestation and resource misuse can be derived from available data. In Cameroon, for example, much of the commercial logging takes place in primary forest zones (FAP 1992), where IIED has estimated that potential commercial timber volume reaches 35 cubic meters per hectare. For a variety of reasons, loggers "high-grade," harvesting only five to six cubic meters per hectare within their concession areas (BSP Technical Report, Part II, p.35). This suggests an opportunity cost of 29 to 30 cubic meters of commercially usable timber per hectare in a typical current logging operation in Cameroon. At an average export value of \$35 per cubic meter (a conservative figure based on the pulpwood price), this represents an opportunity cost over \$1,000 per hectare.

In other words, primary forest area under commercial logging in Cameroon generates a relatively low return in comparison with the standing value of the timber on a given hectare of land. Using the same figures, forest area which is cleared can be understood as representing the total loss of the timber previously "stocked" on that land. At 35 cubic meters of

commercially usable timber per hectare for primary forest land, and an export value of \$35 per cubic meter of timber, each hectare cleared represents a loss of some \$1,225.

This figure should be set against the economic benefits - if any - derived from use of the land cleared, for example in the case of land cleared for agriculture or for development of infrastructure of value to the economy. Also, the domestic market for wood products (building materials, fuelwood, and other products) is substantially greater than the export market. It is not known what value might be assigned to such products (though on average it is sure to be lower than that of export-quality timber); it is also not known how many cubic meters of such wood are "stocked" in a given unit of forest land.

This very rough analysis also does not take into account the loss of ecological services due to forest degradation and conversion. In the case of Korup, whose core and buffer zones total 426,000 ha., Ruitenbeek calculated the value of watershed benefits at 1,650 million CFA per year, or roughly 3,800 CFA per hectare per year. Korup is a mountainous area with a high population density, high agricultural potential, and serious risk of flooding and erosion. Similar values would not necessarily be found in lowland forest zones of the central Africa region.

When specific sites or interventions are examined, the best available data would be used to carry out assessments of the type discussed above. In some cases it may be possible to attribute numerical values to ecological services, although this science is in its infancy. Natural resource accounting is an emerging field, however, and the CARPE project will be ready to support efforts within the region to help move countries toward environmentally relevant measures of national economic performance. In a few cases it may also be possible to carry out more formal cost-benefit analysis, although this will probably not be typical of interventions supported by CARPE. In addition, other economic values can be attributed to the central African forest beyond those associated with logging; some of these are noted below. The commercial prospects for these other aspects of the region's biodiversity endowment have not been well studied, and in many cases they are almost totally unknown. The purpose of including these categories is simply to serve as a reminder that the unchecked degradation of central Africa's ecosystems may have a wide range of long-term economic consequences in terms of foregone opportunities, even though most of these cannot be readily quantified at present.

## **Other Economic Values Related to Biodiversity**

### **(a) Medicinal Plants**

The central Africa region is known to contain extensive, but poorly studied, biological resources. One of the most salient areas of interest in this regard is the potential for discovery of bioactive materials, which may eventually result in new pharmaceutical applications. According to a recent USAID study:

"Economically important medicinal plants are harvested in Cameroon for sale in the European market--for example, Cameroon is the major world source of bark derived from the afro-montane tree *Prunus africana* (also known as *Pygeum*), from which extracts with important anticancer properties are derived and marketed in Europe. A French company known as Plantecam Medicam is the sole holder of a commercial exploitation permit allowing it to collect and export *P. africana* bark for the European market, estimated at \$150 million in 1992."

(Putterman 1994, "Biodiversity Property Rights and Bioprospecting in Cameroon: an Overview;" p.7)

U.S. research and conservation groups such as WWF, the Missouri Botanical Garden, Purdue University, and the National Institutes of Health are involved in research of this type in central Africa. For example:

"WWF also works with the U.S. National Cancer Institute in conducting cultivation studies of *Ancistrocladus korupensis* in the buffer zone surrounding the park. *A. korupensis* is native to the Korup region, and is the source of a potential anti-human immunodeficiency virus (HIV) drug..." (Putterman *ibid.*, p.6)

#### **(b) Wildlife**

Many animal species are commercially exploited in the central Africa region; many more play vital roles in the subsistence economy. Bushmeat trade is a major source of protein throughout the region, and in many areas is said to be several times more important as a food source than domesticated animals such as beef. Even the urban population retains a strong demand for bushmeat. In Libreville, for example, preliminary studies suggest a monthly volume of bushmeat sales of not less than four tons per month (WWF and UNDP sources). Antelope and monkey species represent the largest share of bushmeat sold in Libreville. In rural areas of Congo, Cameroon, and CAR, however, elephant meat continues to be an important source of supply, and poaching is a significant source of pressure on protected areas. In parts of CAR, poachers crossing into the country from Sudan and Zaire have seriously depleted wildlife stocks, directly reducing the resource base available to local inhabitants who in many cases depend heavily upon bushmeat for livelihood and as a protein source.

#### **(c) Other Non-timber Forest Products**

The Micro Development Corps has identified some 700 plants in Congo and Gabon which may have commercial potential; products which might be derived from these plants include oils, fragrances, sweeteners, spices, and traditional medicines. Some 50 U.S. firms in the personal care products industry have reportedly expressed interest in access to such materials

(source: Micro Development Corps). There are few estimates of the size of this potential market for Central African products.

**(d) Ecotourism**

Nature-based tourism has been an important economic activity in other parts of Africa, notably Kenya, Rwanda, Zimbabwe and Botswana. The most relevant types of forest-based tourism are probably tour operations in Costa Rica and, until recently, in Rwanda. These have been reviewed in the Telesis study cited above, as well as by the USAID SAVEM project. Tourism in the central Africa region has been hampered by factors such as political instability, poor infrastructure, and the historically unfavorable exchange rate of the CFA vis-à-vis other currencies. The devaluation of the CFA in early 1994 has led to the rapid stimulus of other sectors such as logging, but effects on tourism will likely take far longer to materialize.

However, WWF is operating a rudimentary tourism program in Dzanga-Sangha Forest Reserve in southwestern CAR, and is exploring the potential for similar activities in the recently-proposed Bangassou Dense Forest Reserve of southeastern CAR. In early 1994, a team which visited the Bangassou area concluded that while some level of ecotourism potential is present, infrastructure problems will pose serious problems to operators trying to develop this as a destination. It should be noted, however, that even a modest level of tourism can generate economic activities at a scale which is significant relative to other alternative sources of income in remote areas such as these. Just as the disappearance of key animal species can prove crippling to safari and game viewing enterprises in Africa's savanna zone, unchecked deforestation and poaching would also represent serious blows to an emerging forest-tourism industry in central Africa.

- a limited and ineffective role for non-government organizations in the analysis and development of national and international policies which are required for tropical forest conservation and management.

#### 4. AFFECTED ENVIRONMENT

The following provides a brief summary of the affected environment. It is extracted from the Biodiversity Support Program's report, "Central Africa, Global Climate Change and Development" (Biodiversity Support Program 1993).

4.1 Forests: The tropical rain forests of central Africa are considered to be of two major types within the Guineo-Congolian phytochorion: mixed moist semi-evergreen forest of central Africa, characteristic of the Zaire river basin, and a hydrophilous evergreen rain forest, localized along the humid coast where rainfall averages up to 3000mm per year. Bordering the two major rain forest types and in transition zones, a drier semi-evergreen forest extends south to Angola and north into the Central African Republic and northern Cameroon. According to an FAO-UNEP estimate this forest covers approximately 2.8 million square kilometers, of which 1.7 million square kilometers is found in Zaire. It is believed that all of the forested area has, at one time or another, been impacted upon by humans.

Qualitative information indicates that deforestation has been extensive: 59% for Cameroon; 55% for the Central African Republic; 49% for Congo; 50% for Equatorial Guinea; 35% for Gabon and 57% for Zaire. Very little quantitative, up to date information exist with which to accurately map vegetation and its distribution.

4.2 Water: Central Africa is dominated by the Zaire river basin, the largest in Africa and the second largest in the world. The drainage covers 3.6 million square kilometers and includes all of Zaire, all but the southwest of Congo, south and central regions of the Central African Republic and southeastern Cameroon. The Sanaga, Ntem, Benito, and Ogoue rivers form a basin that drains southern Cameroon, Rio Muni and Gabon. Northern Central African Republic is drained by the Chari river that flows into Lake Chad. Northern Cameroon is drained by the Benoue that flows west into the Niger River Basin, and the Logone that flows into Lake Chad.

Water balance (precipitation = runoff + retention, retention = evapotranspiration + interception) is positive throughout most of the year. Water stress does occur, however, in all but a few locations within central Africa its length and severity increase with latitude. Water stress at some time during the year is considered a fundamental reason that, although floristic diversity is comparable, the total flora of African moist forests is less than that of central and south American, and southeast Asia.

4.3 Soils: Soils in central Africa have developed under high and constant soil temperature, a udic soil regime characterized by a dry season of less than four consecutive

months, and an original tropical rain forest or seasonal semi-evergreen tropical forest vegetation. The most abundant soils of central Africa are the oxisols. They are acidic, are associated with aluminum toxicity, and are low in nutrients such as phosphorus, calcium, magnesium, sulphur, and zinc. Hydromorphic soils are common in the river drainages and estuaries. Soils of volcanic origin are found in southwestern Cameroon and eastern Zaire.

4.4 Protected Areas: (extracted from the IUCN's "Protected Areas of the World, A Review of National Systems. Afrotropical, Vol. 3." 1992)

The protected areas in Africa are often the most important sites of biodiversity concerns, and much of the current effort with regard to biodiversity conservation is taking place within these protected areas. The number of national protected areas in the CARPE countries is as follows:

#### Cameroon

National Parks: 7

Animal Reserves: 6

Biosphere Reserve: 3

World Heritage Site: 1

Currently, 9.5% of the land within protected areas (national parks, faunal reserves, hunting reserves and forest reserves) is officially protected.

#### Central African Republic

National Parks: 4

Nature Reserve: 1

Animal Reserve: 7

Special Reserve: 1

Private Reserve: 1

Biosphere: 2

World Heritage Site: 1

Currently the protected area system, comprising four national parks, one strict nature reserve, seven faunal reserves and one special reserve covers approx. 10% of the country.

#### Congo

National Parks: 1

Faunal Reserves: 6

Hunting Reserves: 3

Biosphere Reserves: 2

Large areas of forest, covering about 62% of the country, still remain, representing approx. 9.9% of the dense forest on the African continent. By 1982, 3.9% of the country was established as protected areas, although in effect these exist only on paper.

## Equatorial Guinea

No official protected areas

## Gabon

National Parks: 0

Strict Nature Reserve: 1

Wildlife Reserves: 4

Hunting Reserves: 4

Presidential Reserve: 1

Biosphere Reserve: 1

RAMSAR Wetlands: 3

The protected area system (excluding forest reserves) currently comprises 10 reserves which cover just over 6% of the country.

## Zaire

National Parks: 7

Hunting Reserves: 10

Biosphere Reserves: 3

World Heritage Sites: 4

Parks, reserves and hunting areas represent 7% of the national territory, and are well distributed through the country.

## 5. ENVIRONMENTAL CONSEQUENCES & REVIEW PROCESS

This brief assessment concurs with reports from previous studies, in that the most significant negative environmental impacts currently occurring in the tropical forests ecosystems of central Africa are: (a) logging and (b) slash and burn agriculture. In Gabon, oil producing activities are occurring within one reserve, and the principal company involved, Shell, is utilizing local expertise to conduct environmental assessments of their work. An oil pipeline is being planned from Chad to the Cameroon coast, about which CARPE should ascertain how it might impact upon the region.

**At this time no significant negative environmental impacts, resulting from implementation of the CARPE program, can be specifically identified.** Below is a discussion of the environmental impact potential of activities expected to be carried out under CARPE, to the extent that they can be defined at this point. Likewise, a process is outlined to provide for on-going environmental review, monitoring and modification of implementation.

### 5.1 Analysis of Environmental Impact Potential

The following examines the environmental impact of the proposed CARPE activities according to CARPE Activity Categories:

#### 5.1.1 Field and Research/Analysis Grants

5.1.1.1 Cooperative Agreements: Support for the present and potential activities of the international environmental PVOs (specifically World Wide Fund for Nature and Wildlife Conservation International) should lead to improved measures for conserving biodiversity. At the present time the PVOs do not conduct any activities that work directly associated with logging and/or slash and burn agriculture. The PVOs are concerned with and do work with local communities to address issues with regard to buffer zone and forest management, seeking ways to utilize resources in a sustainable manner.

However, even though they have similar objectives, there is a rather strong difference of opinion between the two PVOs noted above, with respect to development activities in buffer zone areas, particularly in the area of the Korup National Park in Cameroon. One is of the opinion that the other's actions will in the long run have negative consequences for the areas biodiversity. Our assessment was too brief to make any judgement as to the validity of this opinion, but it is of concern as biodiversity conservation is a principal goal of CARPE. An appropriate way to judge will be through an effective monitoring program. **It is recommended that the CARPE program require that proposals received from the PVOs contain a proposed monitoring plan designed to assess biodiversity conservation. It is further recommended that USAID form an "environmental monitoring committee" to assess the appropriateness (taking into account available resources) of proposed monitoring plans with respect to biodiversity conservation.** It is suggested that such a committee be composed of no more than 3 to 5 persons from the USAID Global Bureau, the USDA Forest Service International Forestry Operations and a scientific institute such as the National Academy of Sciences or the Smithsonian Institute.

5.1.1.2 Grants Program: As specific activities under the grants program cannot be fully defined at this time this section will discuss possible approaches for conducting environmental reviews of grant activities. It would not appear, at least in the first two to three years of the project, that a grant program will be of such size that the need for environmental reviews will be overwhelming. There are two basic reasons for this.

First, the local NGO community, on which the focus would be small grants (less than \$100,000) is not, from an administrative and implementation point of view, very strong. For the most part local NGOs will likely require further institutional strengthening, or the oversight of an internationally established PVO, before they can apply for and implement a grant. In addition a sampling of local NGO actions demonstrates that their activities are local in impact, and from an environmental point of view have not contributed to any degradation. These activities typically involve such programs as tree nurseries and tree planting, seminars on urban pollution, promotion of improved wood stoves, fruit tree production, agro-forestry and soil conservation. Depending upon the criteria developed, some of such activities would likely not qualify for a grant program which emphasizes biodiversity and global climate change. There are exceptions of course, but the number of well established local NGOs with a track record in the area of biodiversity conservation is very small.

Second, the qualified international environmental PVO community, which would receive the larger grants or cooperative agreements, is small in number. In addition to World Wide Fund for Nature and Wildlife Conservation International, two European based PVOs also have programs in the region. They are Birdlife International and the International Union for the Conservation of Nature (IUCN). The cooperative agreements and grants for which they would apply will most likely be for longer term activities, at least equal to the life of the project (to progress toward achievement of the project purpose they should be equal to the life of project). An environmental assessment for these proposals is likely to occur only once during the life of the project.

The same is true for the established "development" PVOs. At least fourteen US-based development PVOs have programs in one or more countries of central Africa; however, none of them have a regional program (as yet), and their primary emphasis seems to be on agricultural or health programs. International development PVOs may see the CARPE program as an opportunity to establish activities in the region. These activities will also likely be for the long term, thus, requiring a single environmental assessment.

Regardless of the number of possible grants, one of the intents of USAID's environmental procedures is to improve host country capabilities to assess environmental impacts. In this regard, at least two local NGO organizations were identified which would be capable, with some training in USAID regulations, to conduct environmental reviews: Gabon Vert and the Cameroon Wildlife Conservation Society.

Gabon Vert is a Gabonese-owned NGO capable of providing consulting services for environmental assessments. All of their personnel have a minimum of 5 years experience in Gabon or Central Africa. They have conducted environmental assessments for major oil companies working in Gabon, Conoco and Shell. It did appear that most of their consulting expertise, with respect to environmental assessments, was ex-patriate personnel rather than African.

The Cameroon Wildlife Conservation Society is a newly formed NGO in Yaounde, comprised primarily of Cameroonian wildlife professionals. Members of their society have been utilized by Wildlife Conservation International in the conduct of biological surveys. While this group may require more in-depth training in the conduct of environmental assessments, they, nevertheless, have a professional core staff capable of conducting environmental reviews for locally funded NGO grants.

#### 5.1.2 Training, Technical Support, Analysis and Regional Coordination

The majority of activities proposed under this component consist of technical assistance, training and studies. These activities will not have a negative impact upon the environment. They will contribute to an improved understanding of the forest ecosystems and human use of these ecosystems, an improved understanding of the policies and conditions which influence the

management of the forest, and increased local capacity to establish conditions and practices which conserve biodiversity.

Peace Corps is the one activity under this component, which will implement field activities, and potentially impact upon the environment. It is expected that this impact will be beneficial.

Support for Peace Corps activities would be directed principally toward programs in agro-forestry, soil erosion control, aquaculture and environmental education. All of these activities can be expected to have an indirect mitigating effect against the practices of slash and burn agriculture, helping to stabilize agricultural practices, and thus, reduce the rate of forest clearing.

The implementation of CARPE does not call for any bilateral assistance. However, because of the economic and social importance of the tropical forests, and because of the wide donor interest, it is recommended that CARPE request each individual government to nominate an "advisor" to the CARPE program. This person would essentially serve as a contact point between the governments and CARPE to coordinate activities which may call for government participation in donor meetings, seminars and policy review.

## **5.2 Environmental Review Process.**

In light of what, initially at least, would appear to be a small number of environmental reviews to be conducted under the grant program, and the availability of at least two capable local NGOs for conducting environmental assessments, the following is proposed for the environmental review process of the grants program, and the cooperative agreements.

- 1. Grant and cooperative agreement proposals should be individually subjected to Initial Environmental Examinations, as per USAID's environmental procedures, Regulation 16.** Where these proposals involve natural forest management activities in a manner which may result in significant loss of tropical forest and/or involve commercial timber extraction an environmental assessment for that specific action should be conducted. Supplemental environmental assessments is discussed later, under significant issues.

- 2. The REDSO/WCA environmental office could conduct and/or supervise the Initial Environmental Examinations for the cooperative agreements.** The Congo Forest Conservation Project, a 2.5 million dollar grant to the Wildlife Conservation Society (at the time Wildlife Conservation International), was approved (in 1991) with an Initial Environmental Examination. Cooperative agreements and large grants under CARPE are likely to be similar in nature, and an Initial Environmental Examination should be appropriate for determining the environmental threshold decision (a positive decision would, in most cases, likely necessitate an environmental assessment). Given the amount of funding available, similar size grants as for the Congo Forest Conservation Project are not likely to number more than four to six.

3. It is recommended that the Grants Management Unit (the Biodiversity Support Program was proposed in the draft Project Paper) sub-contract with Gabon Vert in Gabon and the Cameroon Wildlife Conservation Society in Cameroon to conduct the Initial Environmental Examinations for grants to local NGOs within Gabon and Cameroon respectively. The REDSO/WCA environmental office could provide the necessary training to these two organizations to assure that the examinations responded to USAID environmental procedures. The contracts to Gabon Vert and the Cameroon Wildlife Conservation Society could include services to the countries of Congo and Central African Republic. Alternately, REDSO/WCA could provide the support for the conduct of environmental reviews of grants to local NGOs in the Congo and Central African Republic until such time that a suitable host country organization could be identified to conduct the reviews.

It is, however, not difficult to imagine that a number of small grants to local NGOs will fall within the decision threshold of categorical exclusion or negative determination. That is to say, they would have no significant environmental impact, and therefore an initial environmental examination would not be necessary. As a result, it may not be cost effective to sub-contract for an Initial Environmental Examination of the proposal. Examples of such proposals could include: a seminar on the issues of biodiversity; a germination experiment of forest trees; a biological survey of forest flora. Such proposals could be electronically forwarded by the grants management unit to REDSO/WCA for environmental review.

4. It is expected that the Grants Management Unit will prepare criteria<sup>2</sup> for acceptance of proposals. It is recommended that the criteria include the Initial Environmental Examination format and guidance for its preparation. A peer review committee established by the Grants Management Unit would ensure that the criteria for sound environmental design are addressed. This would expedite clearance actions, whether at REDSO/WCA or in USAID/Washington.

5. Any request for proposals, whether through a cooperative agreement or grant, should specify that a copy of the proposal may be submitted to the Africa Bureau Environmental Officer, who will determine if the proposal should be the subject of a supplemental environmental assessment. The Africa Bureau Environmental Officer may designate the Regional Environmental Officer of REDSO/WCA, or any other person, to conduct the

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<sup>2</sup> A note about the criteria. USAID grants to PVOs (international and local) through Mission PVO projects have generated a high number of proposals, and each in turn requires an environmental review. However, Mission PVO projects are as much about supporting and strengthening PVOs as they are about supporting a specific sector. Thus, in the effort to "help" PVOs, the criteria for acceptance of a proposal under, say, the natural resource sector are somewhat weakened. An illustration will serve as an example. In providing grants to local NGOs in support of biodiversity conservation it is one thing to give a grant for research into forest food species and another to give a grant for research on cassava varieties. In a broad sense, both address issues of biodiversity conservation; however, the latter may not conform to the intent of CARPE. This is not to argue for such strict criteria as to minimize the number of grants, but it does suggest that the number of grants, particularly local grants, is likely to be limited, at least in the beginning years.

review of proposals. In any case the final decision as to whether an environmental assessment is required will be made by the Africa Bureau Environmental Officer.

6. All Initial Environmental Examinations and/or Environmental Assessments will be forwarded to The Africa Bureau Environmental Officer for approval and the Africa General Counsel for clearance. These offices should make a determination if they intend to transfer effective authority environmental approval for small grants (e.g. under \$100,000) to the REDSO/WCA Environmental Officer and REDSO/WCA Legal Advisor. The peer review committee, which would include a representative of USAID, is responsible for adherence to sound environmental design principles, and would refer proposals to the appropriate environmental officers for approval if necessary.

### 5.3. Significant Issues<sup>3</sup>

#### 5.3.1 Issue Number One: FOREST LOSS (includes deforestation, degradation and conversion)

A number of issues pertaining to this topic will be addressed in Section 7 of this report, the Primary Tropical Forestry Environmental Assessment. This programmatic environmental assessment notes that the principal concern, with respect to forest loss, is the dramatic increase in logging following the devaluation of the Central African franc (FCFA) in January 1994. During the field investigation by this assessment team it was reported that the export of cut logs has increased from the Congo and Central African Republic through Cameroon. Prior to the devaluation, this overland route (from extreme northern Congo and southern Central African Republic through Cameroon to Douala) for log export was not economically viable. The increased logging is concentrated in the so-called triangle region, where the borders of Cameroon, the Central African Republic and the Congo meet.

This triangle region is highly regarded by conservation groups, as evidenced by their desire and activities to establish a three nation national protected area. The area contains some of the few remaining large tracts of primary forests in the three countries, and it has a high density of flora and fauna. The Congo (Nouabole-Ndoki National Park) and the Central African Republic (Dzanga-Sangha Reserve and Dzanga-Ndoki National Park) have already established protected areas in this triangle, while Cameroon is currently studying a proposal to do so (the Lac Lobeke Faunal Reserve).

**As a priority action CARPE should work with other donors and the host governments to develop a plan of action, within the framework of the country's national environmental action plans, to set aside a protected area in Cameroon, and assist the three countries to launch an integrated planning action which would balance economic interest with the need for forest conservation.**

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<sup>3</sup> As identified in the Scoping Statement.

There was not adequate time to fully examine the status of a timber harvest certification program vis-a-vis the capacity and interests of the individual countries. Nor was there sufficient time to determine the number of logging concessions within the region. Visits to logging companies and meetings with government officials revealed a concern for a certification program. This concern ranged from the serious, "a certification program is necessary", to the glib, "we'll put any paper you want on the logs". To the best of our knowledge there has not been any serious attempt to initiate a certification program. Due to time constraints in Gabon, the team was not able to contact the African Timber Organization to determine the follow-up they had done with regard to their expressed desire to implement a certification program.

**It is recommended that CARPE support a study, within one of the four countries, of the feasibility and requirements for a timber harvest certification program. Such a study should be designed in collaboration with ECOFAC and the GTZ program.**

By chance the assessment did encounter, in Brazzaville, a representative of a U.S. based company (Rio Rivuma) who was negotiating with the Congo government for long term logging concessions adjacent to the Nouabale-Ndoki national park in northern Congo. The company, which markets tropical hardwoods, purports to have "created systems of low impact natural resource harvesting, scientifically informed management and direct distribution as integral parts of our conservation projects." The company claims to be able to conduct a first processing of logs at the spot where they are cut in the forest, thus reducing forest damage caused by log removal operations, and increasing the value-added work done in a forest by the forest inhabitants (or loggers).

It would be in the interest of CARPE to further assess the operations of Rio Rivuma to determine if it offers a viable alternative to current logging practices. **If at some later date CARPE should decide to participate in the funding of a trial utilizing Rio Rivuma practices, it would be necessary to conduct an environmental assessment in the proposed area of the trial.**

Forest loss is one of the principal reasons as to why CARPE has been proposed. However, the factors behind forest loss are multiple and complex, involving socio-economic issues in addition to conservation issues. **Understanding the nature and causes of forest loss should be a continuing objective of CARPE, and in so doing it is necessary that intensive collaboration be undertaken with ECOFAC, GEF, GTZ, and UNDP in an effort to develop one donor voice on the issue.**

It is perhaps worth observing that much of the forest loss is being driven by "northern" demand. Land is being cleared for export crops and logs are being turned into fine bookcases, which are stocked with books on the disappearance of tropical forests. It would behoove CARPE and the other donors involved in forest conservation in central Africa to examine more closely how a better balance can be obtained between the forces of economic growth and conservation of tropical forests.

An issue which was not raised during the assessment field trip was localized forest loss which occurs as a result of refugee situations, such as the one experienced in Zaire as a result of the recent Rwanda crisis. While probably not the subject of direct intervention, CARPE should consider examining approaches to such situations which can reduce environmental damage.

### **5.3.2 Issue Number Two: BIOLOGICAL DIVERSITY**

The documentation with respect to species and endangered species is so varied and dispersed, that the time available did not permit the assessment team to adequately document in-country information sources concerning biodiversity. However, it is noted that the principal international environmental PVOs (World Wide Fund for Nature, Wildlife Conservation Society and International Union for the Conservation of Nature) have a significant listing of species from the areas in which they work. ORSTOM, the French overseas scientific research center also has a wide range of relevant documentation. Unfortunately ORSTOM/Brazzaville suffered an irretrievable loss of more than 45 years of scientific research in the Congo when their Brazzaville offices were destroyed during violent political demonstrations in early 1994.

Other programs involved in conducting biological surveys in an effort to better document flora and fauna species include:

The Wildlife Conservation Society is undertaking country wide biological surveys in association with a local NGO, the Cameroon Wildlife Conservation Society;

ECOFAC is conducting extensive biological surveys in the protected areas covered by their project;

Researchers from the Division of Ecology of the Museum of Nature and Human Activities in Hyogo, Japan have conducted surveys in Nouabale-Ndoki park of the Congo;

The Missouri Botanical Gardens is conducting extensive flora surveys in the region; and

Birdlife International has undertaken ornithological surveys of rare montane forest bird species in Cameroon.

Again, time constraints did not permit an adequate review of priority areas for biological surveys; however, the aforementioned organizations and others have undertaken extensive surveys and are well positioned to identify for CARPE any additional areas in need of survey. Local resources which can assist in this effort are Gabon Vert, the Cameroon Wildlife Conservation Society, and the national herbariums of Gabon, Cameroon and the Congo.

As is well known the flora of central Africa is extremely rich in species, yet there remains an enormous amount of information gathering and cataloging to be done. The World Wide Fund for Nature in Gabon notes that "the Gabon-Cameroon Domain (Cameroon, Equatorial Guinea,

Gabon) is the richest zone in number of species in all of tropical Africa, richer than West Africa and richer than the Zaire Basin."

### **5.3.3 Issue Number Three: ENVIRONMENTAL PLANNING**

A national environmental action plan and a tropical forestry action plan have been completed in the Congo, and are awaiting donor review and government approval. National environmental action plans and tropical forestry action plans are in progress in the Central African Republic and Cameroon, and they should be completed by late 1995. Gabon does not have a national environmental action plan in progress. Most African countries which are developing such plans are doing so because of requirements by the World Bank to receive international development assistance loans. Gabon does not receive such loans.

A summary review of the Congo plans indicates that they are quite extensive, and they should serve as an adequate general planning document. Similarly, it would appear that progress is being made in Cameroon and the Central African Republic to develop adequate plans.

**While progress toward the national planning documents appears to be adequate, planning at a more local level, such as individual forest management plans, appears to be lacking, except where there is donor intervention. This is an area which CARPE could explore further, in order to determine how planning assistance might be developed.**

It was clear that regional cooperation, i.e. cooperation among the Central African Republic, Congo, Gabon and Cameroon, with respect to forest resource conservation and management was non-existent. **It is recommended that CARPE, during the first year of implementation, meet with other donors, particularly ECOFAC, to discuss and formulate a plan for the development of regional cooperation.** A coherent and responsible forest management program, particularly as it applies to timber exports will not be possible without some type of regional coordination and planning.

### **5.3.4 Issue Number Four: PVO/NGO FIELD ACTIVITIES**

The principal international environmental PVOs working in the region are well established, with a good track record, in terms both of effective project implementation and environmental protection and conservation. Comments with respect to this issue will be limited to local NGOs.

As previously stated the local NGO community is rather young, and consequently weak from a management point of view. It is in Cameroon, where the PVO-NGO/NRMS project works, that the NGO community is most advanced relative to the other countries. Because of local NGO community is so young, there is a strong need for institutional strengthening and capacity building. This reinforces the need for CARPE to continue in some form the PVO-NGO/NRMS project and adapt it to the four countries of Cameroon, Congo, Central African Republic and Gabon. From an environmental point of view it is likely that in all of the countries

there will be no more than half a dozen local NGOs capable of undertaking activities during the first two to three years of the project. Much will depend, as stated previously, upon the criteria established for providing grants to local NGOs.

As an additional measure to strengthen local NGOs it is recommended that grants and/or cooperative agreements to international PVOs require that the PVO pair with a local NGO in the design and implementation of the PVOs proposal. The advantages, with respect to long term sustainability, outweigh the disadvantages.

The "Provisional Environmental Guidelines for PVO/NGO Field Use in Africa" (USAID 1993) are being substantially revised in AID/W. As they are currently presented, the guidelines provide more in the way of reference material than guidelines for conducting an assessment. However, for organizations with little or no experience, a good source of reference material is essential.

The current guidelines and reference material also focus to a large extent upon development activities. The area in which the provisional guidelines are likely to be of use are the activities of local NGOs which are associated with so called integrated conservation and development projects, where the focus is upon social and economic development needs of residents within buffer zones. An appropriate guideline will depend to a great extent upon the criteria developed for accepting proposals. If criteria development limits proposals for activities which directly contribute to the biodiversity conservation goals of CARPE, then appropriate guidelines for conducting an environmental assessment of such proposals will be more narrowly defined.

Other appropriate guidelines which should be made available to the PVO/NGO community are the ones addressing USAID requirements regarding Sections 117 (environment and natural resources), 118(tropical forests), and 119(biodiversity) of the Foreign Assistance Act.

### **5.3.5 Issue Number Five: AGRICULTURAL EXTENSIFICATION**

The need for new agricultural lands (slash and burn) is seen as a major factor in tropical forest loss in central Africa. However, an interesting observation from the Congo and Gabon is that an estimated 70 percent of their populations (2+ million for Congo and 1+ million for Gabon) are urban dwellers. As a result, the governments, particularly Congo, have a strong interest in urban environmental problems.

There was not adequate time to obtain detailed information with respect to tropical forest conversion to agriculture, however, it did not appear to be a significant issue in Gabon, certainly not in comparison to logging, mining and oil exploration. For the near term, it would seem that areas opened up by logging are more subject to commercial hunting than agricultural conversion. There is some belief that agricultural activities in Gabon have increased somewhat following devaluation.

A similar situation appears to exist in Congo, although in the southern Congo conversion to agriculture has been occurring for some time, apparently in areas which have been logged for several years.

In Cameroon population pressures in the northwest and west, and around the urban areas, have brought about an increase in forest conversion to agriculture. The montane-like forests are located in these zones, and their volcanic soils make the area attractive for agricultural use.

Environmental concerns, with respect to tropical forest conversion to agriculture, have put the focus upon agricultural intensification, i.e. increasing the production per unit area and decreasing the rate of slash and burn agriculture. As mentioned above, the International Institute of Tropical Agriculture has established a humid forest research station in Cameroon to address this issue. While there have not been any specific results to date, the research appears to be addressing critical and appropriate questions. It would be appropriate for CARPE to follow these research activities, and provide an outside analysis of the applicability of research activities to farmer needs and biodiversity conservation.

#### **5.3.6 Issue Number Six: INTERNATIONAL TREATIES AND AGREEMENTS ON NRM & ENVIRONMENT**

This issue was not examined in detail, but it was noted that the countries of the region are signatory to the major environmental treaties and agreements, e.g. the biodiversity convention, the global climate change convention, the Ramsar convention on wetlands, the desertification convention (Cameroon and Central Africa Republic), the African convention on national parks, the convention on international trade in endangered species (CITES), etc.

The assessment noted that particularly when the treaties addressed issues of national interest the countries were acutely aware of the need to formulate and adopt positions that were protective of the national interest. This was demonstrated by the strong attendance of these countries (14 people from Congo, 16 people from Gabon and 12 people from Cameroon) at the recent (Nov., 1994) CITES meetings in Florida, where trees of the *Khaya* spp. were discussed with respect to the question of placing stringent restriction on the tree's use. This particular genus of tree is of economic importance to the countries.

CARPE could provide assistance in the form of analytical studies to assist governments in designing programs in support of the major treaties and/or conventions. It would also be useful for CARPE to conduct discussions with host country governments with respect to a possible regional convention for tropical forest management, a sort of unifying element to the individual tropical forestry actions plans.

#### **5.3.7 Issue Number Seven: MAJOR DEVELOPMENT ACTIONS**

There was not adequate time to obtain sufficient information with regard to major development activities, other than timber operations, which may impact upon the tropical forests (e.g. the proposed oil pipeline from Chad to the Cameroon coast, mining, dam construction and major road construction). It is a topic which CARPE can examine in more detail during implementation, when CARPE is more fully collaborating with other donors and local institutions to examine ways to bring forth policy questions for public debate.

It was observed in Gabon that one oil company, Shell, in the process of conducting oil exploration and extraction in a national reserve, was utilizing the resources of a local NGO (Gabon Vert) to conduct environmental assessments.

### 5.3.8 Issue Number Eight: SUPPLEMENTAL ENVIRONMENTAL ASSESSMENTS

Based upon past experience with the WWF and WCS cooperative agreements, there is not at this time any reason to believe that the proposals which are likely to be developed would require an environmental review at a level above an Initial Environmental Examination. This is supported by the fact that such an environmental review was conducted for the Congo Forest Conservation Project, implemented by the Wildlife Conservation Society. The Congo Forest Conservation Project included the following activities: education, technical assistance, training, controlled experimentation, studies, workshops and meetings, building construction, utilities and services, road re-openings, river openings, trails and tourism.

Similarly, grants to other organizations are most likely to be of a nature that an Initial Environmental Examination will be adequate with respect to USAID's environmental procedures.

Proposals which may include actions to aid local enterprises to undertake value-added activities, with regard to forest products (e.g., improved training of carpenters who make local furniture) should be examined on a case by case basis. It would be expected that most would not involve an action higher than an Initial Environmental Examination.

The following activities are among the actions which should be considered for a supplemental environmental assessment. However, it should be noted that during the time of this assessment there was no indication that any organization was, or would be, considering any such proposal.

-Development of forest management plans which could include the designation of areas for timber harvesting;

-Joint proposals with timber companies for the planning of timber management activities, including companies which purport to utilize sustainable harvesting techniques;

- Proposals for the organization and/or rationalization of commercial game hunting;
- Proposals which call for the construction of new roads within forested areas;
- Proposals which assist with resettlement programs, either from or to forested areas;
- Proposals for the design and implementation of a timber harvest certification program for a specific locality or set of localities;
- Assistance to relief operations located in forest zones.

CARPE should encourage studies to analyze the needs and requirements for certification, and where appropriate these studies should be conducted with the participation of local timber operators. In cooperation with other donors, CARPE could sponsor representatives from timber companies and governments on visits to currently certified timber operations. We understand that one such certified timber operation is located on the Menominee Indian Reservation in Neopit, Wisconsin. It would also be appropriate for CARPE, again in coordination with other donors, to sponsor workshops and/or seminars at which timber companies, government representatives and interested organizations could debate and provide recommendations with respect to timber certification issues.

## **6. PRIMARY TROPICAL FOREST ENVIRONMENTAL ASSESSMENT**

### **6.1 Impacts and effects of CARPE program activities/projects in implementing Section 118, 119 and 533(c)(3) of the Foreign Assistance Act.**

This section of the PEA identifies how the proposed CARPE program would implement the goals and requirements of Sections 118, 119 and of the amended Foreign Assistance Act and Section 533(c)(3) of the 1991 Foreign Operations Act (Appendix 1). These sections have very specific language that require USAID to consider and implement the protection of tropical forests and biological diversity in the design of assistance programs and projects.

#### **6.1.1 CARPE Program Activities**

CARPE program funding will be used for many different types of activities, to be implemented by various organizations. These activities include analyses and monitoring of tropical forest resource conditions through surveys and assessments, as well as the use of forest resources, expected future demand for forest resources, and forest resource management effectiveness. Forest policy and issues analyses in the subject countries and for the region also

are important activities that will be promoted. **Such biological and socioeconomic assessments, done at various geographic scales in all six countries, will be critical to effective CARPE program implementation.**

Regional and national communications capabilities among conservation managers, researchers, educators, and citizens will be strengthened, and new communications networks created. Improved coordination among country government personnel, forest resource users, communities, donors and others will be a major activity. The development of management, research and policy networks; improved natural resource information systems such as GIS; and standardized inventory and assessment techniques are some other activities that will be promoted under the CARPE program, and which will facilitate essential communication and appropriate management of tropical forest resources.

Training of personnel in forest resource assessment, management techniques, communications, and a broad range of other skills necessary to accomplish comprehensive forest conservation and sustainable forest resource use will be major activities supported by CARPE. Persons potentially targeted for such training include government officials, NGO/PVO personnel, and citizens. Training likely will be done through workshops.

Field reviews, analyses and meetings will be used to discuss and identify research and management needs and options. Community development with the assistance of local NGOs, as it relates to sustainable forest resource use will be promoted.

Income-generating projects, such as non-traditional exploitation of forest products, will be supported. Research into not only the conditions, ecological function and human use of tropical forest resources, but also into the ways in which forest productivity can be increased and in turn be used in a more sustainable manner will be promoted.

The continued development and implementation of national and site-specific management plans and forest conservation strategies will be encouraged and supported. National Environmental Action Plans will be completed in 1995 or 1996 for CAR, Congo, Gabon and Cameroon. CARPE will also promote regional planning for tropical forest conservation and coordination among various countries and interested parties.

A broad spectrum of entities will implement these activities in the field including local, regional, national and international PVOs and NGOs, the US Peace Corps, governments, and university personnel. In addition, through CBD and FRMII, the Biodiversity Support Program, and the Forestry Support Program (US Forest Service) will implement CARPE program activities by administering grants, and coordinating technical assistance and training.

## **6.2 Assessment of each activity on implementation of Tropical Forestry and Biodiversity Provisions**

### **6.2.1 Forest Resource Analysis and Monitoring**

The analysis and monitoring of forest resources and management conditions would have little direct environmental impact on forest resources, but would have significant indirect beneficial effects in implementing all three Sections of the FAA. Section 118 specifically requires that research to expand knowledge of tropical forests, increase the awareness of the long-term values of tropical forests, alternatives to forest loss, and alternative land uses be supported and encouraged. In addition, high priority conservation and sustainable management of tropical forests can be effectively done only if quality field-generated resource information, knowledge and analyses are available. Topics that would be addressed by CARPE activities in all countries are likely to include: status and trend of forest and habitat loss; large mammal population distributions and trends; local, national and regional harvest of timber and wildlife, including economic and social impacts to local communities and nations; and the effectiveness and potential for improving ongoing tropical forest conservation management programs.

Section 119 requires that biodiversity be protected through species identification and study, reserve management, and conservation law enforcement. CARPE activities would include support for better cataloging and study of plant and animal species, their distribution, ecology and values for human use; analyses of how reserves are used by people and wildlife, and how they can be better managed to meet conservation and development objectives; and how enforcement and monitoring of plant and wildlife harvest regulations and timber harvest rates can be more effective.

Similar activities that are being done or are proposed include: inventories of vegetation and animal populations; periodic reviews of effectiveness of reserve/park management; and the use, options, and effectiveness of green labeling timber and timber products in source countries and in countries of end use.

#### 6.2.2 Policy and Issue Analysis

Policy and issue analysis also would have little direct environmental impact on forest resources, but would have very significant indirect beneficial effects by providing an analytical base of knowledge and rationale that is needed for management decisions, and meet the requirements of the three FAA Sections. Analyses of logging practices, timber harvest allocations, forest regeneration incentives, wildlife utilization trends, and the effectiveness of forest resource management are examples of policy and issue analyses that would be stimulated by the CARPE program.

#### 6.2.3 Communications

Increased and improved conservation communication activities under CARPE will meet several requirements for Section 118, including dialogue and information exchange, education efforts, and increased awareness of the values of tropical forests. In addition, because timely, dependable and effective communications systems are such important tools for implementing land and resource management actions, several other Section 118 requirements also will be met.

Sections 119 and 533 set goals for resource management, involvement of local citizens in forest management decision making, and support to PVO and NGO organizations. CARPE projects will facilitate enhanced communications in the region. Existing examples of communications activities include the recent formation of the African Forest Action Network, inter and intra-country radio communications, e-mail correspondence, numerous printed conservation newsletters and environmental education materials, and community outreach activities.

#### 6.2.4 Training

Training programs and institutional strengthening that promote forest conservation, and sustainable timber harvesting are activities that will meet significant requirements of Section 118. These activities will enable CARPE countries to implement the forest assessment, environmental analysis and other management actions that Sections 119 and 533 promote using local expertise. Training as part of ongoing field conservation projects, workshops on standardized inventory techniques, and NGO development are just some examples of important and very useful ongoing training that will likely be supported by CARPE.

#### 6.2.5 Income-generating Pilot Projects

CARPE projects that are designed to use forest resources and to generate income, such as agroforestry, ecotourism, and harvest of non-timber forest products, would directly meet requirements of Sections 118, and 119 for developing alternatives to forest loss, supporting stable and productive farming practices, analyzing alternative land uses, and protecting biodiversity. Well-designed ecotourism projects and "bioprospecting" for species and species products that are useful for medicinal and pharmaceutical products are currently taking place, and there is good potential for significantly more of these community-level projects.

#### 6.2.6 Research

Research activities done through the CARPE program would implement Section 118 direction to support research to expand knowledge of tropical forests, as well as Section 119 direction to identify and catalog animal and plant species, and facilitate the analyses that must be done to implement the direction and requirements of all three Sections. Research on elephants, gorillas and chimpanzees; forest composition; and human uses of forest products are examples of current research.

#### 6.2.7 Management Plans

The development and use of management plans and ecosystem and species conservation strategies, as useful means to implement ground-level tropical forest and biodiversity conservation actions, would contribute significantly to the goals of Sections 118, 119 and 533. Continued support for the National Environmental Action Plans, management plans for reserves and surrounding lands, and species recovery plans are examples of ongoing activity in this area.

### 6.3 Summary of CARPE program effects with regard to implementation of the provisions

#### 6.3.1 Section 118 - Tropical Forests

This Section's goal is to ensure that assistance supports tropical forest management in a manner which provides a sustained flow of resources essential to the economic growth of developing countries, as well as genetic resources of value to developed and developing countries alike. This goal, as well as the requirement to place a high priority on conservation and sustainable management of tropical forests, are the very purposes for CARPE program implementation in the Congo Basin countries. The CARPE program recognizes the biological, ecological, and socioeconomic necessity of addressing forest conservation from a regional, ecosystem basis, and will promote intra-regional resource assessment and management activities. The regional work that has been done to better coordinate and manage the tropical forest where the C.A.R., Congo and Cameroon borders meet, is an extremely important example of an initiative that CARPE can foster.

Research, dialogue and exchange of information with and among recipient countries regarding tropical forest and climate change topics are requirements as well as important CARPE objectives. Research on forest regeneration and large mammal ecology, and workshops on improving communications networks are some examples of the activities that would meet these objectives. The anticipated involvement, support, and contributions of the resources and abilities of several U.S. agencies and donors in tropical forest conservation will meet several requirements of Section 118.

Tropical forest conservation will result from CARPE investments in activities that offer alternatives to forest loss,-- from supporting stable and productive farming practices, to promoting increased production on lands that are not primary forest lands. Ecotourism initiatives, such as those being done in Dzanga-Sangha Reserve in C.A.R. and the Lope Reserve in Gabon, are fledgling examples which can be replicated in other locations and situations. Extension programs that test, teach, and demonstrate agroforestry techniques, such as the IITA project in Mbalmayo, Cameroon, are the types of projects that should be supported by CARPE, and contribute to Section 118 implementation.

The CARPE program will encourage training, education efforts, and institutional strengthening activities that will promote increased citizen and institutional capacity to practicing sustainable forest management as required by Section 118.

The existing network of protected tropical forest ecosystems likely would be better managed and expanded with investments from the CARPE program. Continued close coordination with governments, other donors and PVOs could lead to improved management of parks, reserves and multiple-use forest areas. CARPE activities that significantly affect tropical forests will be based on analyses of alternative actions or land uses and take full account of impacts to biological diversity.

Under CARPE it is likely that actions will be taken to determine tree and forest regeneration potential, and sustainable timber yield levels. Such activities would be funded only after analysis shows that any timber harvest conducted in conjunction with these activities would minimize forest destruction, and produce positive economic benefits. Environmental analyses would be done to ensure that such actions would contribute directly to improving the livelihood of the rural poor and would be conducted in an environmentally sound manner which supports sustainable development.

### 6.3.2 Section 119 - Biodiversity

The goal of Section 119 of the Foreign Assistance Act is to maintain the viability of animal and plant species, through the regulation of hunting and trade in endangered species, limitations on the pollution of natural ecosystems, and protection of wildlife habitats. This is a major part of the CARPE goal as well, and future CARPE activities would be evaluated and assessed in large part based on their potential to contribute to biodiversity conservation in the region.

**Criteria** that would be applied to all CARPE activities include assisting countries in protecting and maintaining wildlife habitat, and developing sound wildlife management and plant conservation programs. These include establishing and maintaining wildlife sanctuaries, reserves, and parks; enacting and enforcing anti-poaching measures; and identification and cataloging of animal and plant species. Reserve delineation, anti-poaching surveillance, and inventory and monitoring of wildlife and habitat conditions in the Dzanga-Sangha Reserve in C.A.R. are current examples of these activities. The CARPE program will likely promote and invest in these types of activities.

Consultation and involvement of local citizens at all stages of project design and implementation is another requirement Section 119 that CARPE would promote through its design and implementation. Such involvement by citizens and local governments, as currently is being done near and in the Banyang-Mbo Community Reserve and the Dja Reserve in Cameroon, and the Nouabale-Ndoki Park in Congo, are examples of project designs that CARPE would support.

CARPE will likely strengthen and support private, voluntary organizations and non-governmental organizations, so they can participate in forest conservation, assessments, training, community extension, and direct project management. Successful PVO/NGO workshops in Cameroon and C.A.R., and increasing government willingness in all countries to empower such organizations are evidence that CARPE investments can contribute to meeting Section 119 requirements.

### 6.3.3 Section 533(c)(3) - Tropical Forest Management

The goal of this Section is conservation of tropical forests. It permits commercial timber extraction in primary tropical forest areas only after appropriate environmental analyses show

that impacts to biological diversity are minimized, that natural forest ecological functions are maintained, and that deforestation will be reduced. Review of proposed CARPE projects will include such analysis. If any proposed activity or project would potentially "result in any significant loss of tropical forests", or involve "commercial timber extraction in primary tropical forest areas", an environmental assessment would be prepared that:

- identifies potential impacts on biological diversity;
- demonstrates that all timber extraction will be conducted according to an environmentally sound management system which maintains the ecological functions of the natural forest, and minimizes impacts on biological diversity; and
- demonstrates that the activity will contribute to reducing deforestation.

## **7. ENVIRONMENTAL MONITORING, EVALUATION AND MITIGATION**

Monitoring, evaluation and mitigation action should take place at two levels: local (i.e. individual grants and cooperative agreements) and regional.

At the local level the guidelines for grant and cooperative agreement proposals should require that the proposals contain an environmental monitoring/evaluation and mitigation plan. Such a requirement would likely be limited to actions which propose field level implementation activities. A proposal which, for example, consisted uniquely of an inventory of tree species would not necessitate a monitoring plan.

It is not appropriate at this stage to suggest what might go into local monitoring plans. The criteria for acceptance of proposals will influence the type of plans to be developed. During the first year of CARPE's implementation it is suggested that a review of biodiversity indicators be conducted, utilizing resources from other donors and the international environmental PVOs. Such a review will assist with the development of guidelines and/or references for judging and/or developing monitoring plans.

On a regional scale, CARPE proposes to support remote sensing and geographic information system activities by the NASA Goddard Space Flight Center and the U.S. Geological Service. It is suggested that the agreement with these organizations specify that they consult with ECOFAC, GTZ, IITA and host country forest inventory units to examine the issues and requirements relating to a standardized approach toward remote sensing and geographic information systems.

With respect to regional monitoring it is recommended that CARPE examine the possibility of a joint activity with ECOFAC (and possibly GEF) to develop a common data bank on subjects relating to tropical forest conservation. Such a data bank could serve as a regional depository for ecological information and data, as well as pertinent social and economic data, for the analysis of donor program impact.

As it is not foreseen that the implementation of the CARPE program will result in negative environmental impacts, it cannot be expected that activities directly supported by CARPE will result in actions requiring for mitigation. CARPE can, however, provide analysis which will assist donors, private sector and host governments develop appropriate mitigative measures for various development actions. Examples could include:

- closure and reseeded of logging roads by the logging companies;
- the adoption, within a certain time frame, by logging companies of less destructive methods of log extraction (e.g. on site treatment of logs to avoid skidding operations);
- the inclusion in donor assisted relief programs of tree plantings following closure of refugee camps;
- an environmental tax upon companies extracting natural resources.

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**APPENDIX 1: The Goals and Requirements of Sections 118, 119 of the Foreign Assistance Act, and Section 533 (c)(3) of the Foreign Operations, Export Financing Appropriations Act.**

**Goal of Section 118, Tropical Forests**

Properly managed tropical forests that provide a sustained flow of resources essential to the economic growth of developing countries, as well as genetic resources of value to developed and developing countries alike.

**Requirements of Section 118:**

1. Place high priority of conservation and sustainable management of tropical forests.
2. Engage in dialogues and exchanges of information with recipient countries.
3. Support projects and activities which offer alternatives to forest loss and help countries identify and implement alternatives to colonizing forested areas.
4. Support training programs, education efforts, and institutional strengthening that will promote forest conservation.
5. Support stable and productive farming practices.
6. Conserve primary forests by promoting increased production on other lands.
7. Support projects to conserve forested watersheds and rehabilitate those which have been deforested.
8. Support training, research and other actions which lead to sustainable timber harvesting, reforestation, soil conservation and degraded forest rehabilitation.
9. Support research to expand knowledge of tropical forests.
10. With governments, organizations and U.S. agencies identify, establish and maintain a network of protected tropical forest ecosystems.
11. Increase the awareness of U.S. agencies and donors of the long-term value of tropical forests.
12. Use the resources and abilities of all relevant U.S. government agencies.
13. Require that activities significantly affecting tropical forests are based on analyses of alternative land uses and take full account of impacts to biological diversity.
14. Deny assistance: for the procurement of logging equipment unless environmental assessment indicates all timber harvest will be conducted to minimize forest destruction, produce positive economic benefits and sustainable forest management systems; and for actions which significantly degrade protected areas which contain tropical forests or introduce exotic plants or animals into such areas.
15. Deny assistance for certain specified activities unless an environmental assessment indicates that they will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development.

### **Goals of Section 119, Biodiversity:**

Preservation of animal and plant species through the regulation of the hunting and trade in endangered species, through limitations on the pollution of natural ecosystems, and through the protection of wildlife habitats.

### **Requirements of Section 119:**

1. Assist countries in protecting and maintaining wildlife habitats and in developing sound wildlife management and plant conservation programs through efforts to:
  - establish and maintain wildlife sanctuaries, reserves, and parks;
  - enact and enforce anti-poaching measures;
  - identify study and catalog animal and plant species.
2. Include close consultation with and involvement of local people at all stages of design and implementation.
3. Whenever feasible accomplish objectives through projects managed by private and voluntary organizations or non-governmental organizations.

### **Goals of Section 533(c)(3), Loss of Tropical Forests:**

Conservation of tropical forests, and commercial timber extraction in primary tropical forest areas only after appropriate environmental analysis shows that impacts to biological diversity are minimized and displayed, that natural forest ecological functions are maintained, and that deforestation will be reduced.

### **Requirements of Section 533(c)(3):**

Prohibit the expenditure of funds for any activity, program or project that "would result in any significant loss of tropical forests", or involve "commercial timber extraction in primary tropical forest areas" unless an environmental assessment:

1. identifies potential impacts on biological diversity;
2. demonstrates that all timber extraction will be conducted according to an environmentally sound management system which maintains the ecological functions of the natural forest and minimizes impacts on biological diversity; and
3. demonstrates that the activity will contribute to reducing deforestation.

## ANNEX F: Justification

**SUBJECT:** Justification of Non-competitive Awards to the World Wildlife Fund (U.S.), the Wildlife Conservation Society and the PVO/NGO NRMS consortium for Cooperative Agreements under the Central African Regional Program for the Environment (CARPE)

### Problem

Justification for non-competitive selection of the World Wildlife Fund, U.S. (WWF), the Wildlife Conservation Society (WCS) and the PVO/NGO NRMS consortium for Cooperative Agreements under the Central African Regional Program for the Environment (CARPE, 698-0548) is required by regulations which state that competition is to be used to the maximum practicable extent in the award of grants or cooperative agreements. The purpose of these three Cooperative Agreements will be to strengthen and expand the programs of these three environmental private voluntary organizations (PVOs) in the Congo Basin countries.

### Background

CARPE is a centrally-funded program, with a planned budget of \$14,005,000 over five years. The Goal of this project is "to reduce the rate of deforestation of the tropical forests in the Congo Basin, in order to conserve the biological diversity contained in those forests and, in the long-run, to avert potentially negative changes in the global and regional climate. The project's Purpose is "to identify and begin to establish the conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin, in a manner which addresses local, national, regional and international concerns". The conditions to be established are:

- Improved understanding of the overall ecology and biodiversity of the Congo Basin biosphere, the threats to its ecosystems, and the potential impact of the degradation of the region's environment;
- Development of comprehensive long-term strategies for addressing the global climate change and biodiversity issues affecting the Congo Basin ecosystem;
- The development, within the countries of the Congo Basin, of a cadre of trained and committed environmentally-conscious African development specialists (within both the government and non-governmental sectors) that can serve as a nucleus for the sensitization of national policy makers and the public to the importance of conserving the natural resource base of the Congo Basin;
- Creation of a policy environment conducive to land use and production systems that conserve the tropical forests and the biodiversity that they contain;

- Identification and testing of field approaches aimed at slowing deforestation in the region and identifying key conditions that influence the effectiveness of these approaches;
- The implementation of joint efforts at integrated conservation and development involving both environmental and development PVOs and NGOs;
- Creation of partnerships among environmental and development-oriented NGOs, researchers, governments, and the international community, aimed at collaboratively addressing Global Climate Change, biodiversity, and deforestation issues affecting the Congo Basin; and
- Establishment of networks of researchers, local and international PVO and NGOs, policy makers and technicians interested in conserving the Congo Basin's natural resources.

USAID does not have a field presence in any of the countries in which CARPE will be operating. Given USAID's inability to provide close monitoring and oversight, all field activities under CARPE will be carried out using assistance instruments.

#### Discussion

In order to be effective, CARPE must build upon, from the start, a strong field-based presence and expertise. This will be required as a basis for implementing its research and analytical agenda and for meeting its capacity-building objectives. It will not be possible for U.S. PVOs not currently actively involved in the region to provide this broader support during the initial years of the project. It would take those new to the region too long to establish their programs and operations and to gain the regional experience required.

Currently, the World Wildlife Fund (WWF), the Wildlife Conservation Society (WCS) and the PVO/NGO NRMS consortium of World Learning, CARE and WWF are the only USAID-registered PVOs with the regional experience, field presence, facilities, qualified staff, credibility with local governments, and regional focus required to successfully implement CARPE's field activities and support its broader project mandate. They are also the only environmental PVOs with active bilateral agreements with the host governments of the key Congo Basin countries.

Therefore, CARPE will include funding for three cooperative agreements aimed at supporting and expanding their programs and activities in the Congo Basin.

Working in the tropical forests of the Congo Basin involves significant hardships and difficulties, not the least of which are the logistical problems inherent in working in truly remote forest areas. There are also critical needs for close working relationships with host country governments, technical agencies, local populations, and other donors. Bilateral agreements with host governments, for example, which provide legal recognition of PVOs and establish their rights and responsibilities vis-a-vis host governments (e.g., importation rights), and are essential for effective operations. However, they can take a year or more for a PVO to negotiate with

the government. Further, the nature of the tasks to be undertaken under CARPE requires a strong technical knowledge of the region and its ecosystems and a regional perspective on the part of the PVOs and their staff. The qualifications required of field staff for CARPE field activities will be much more stringent than is normally the case in PVO projects. These individuals will not only need strong academic and technical credentials, but also strong interpersonal and French language skills and a willingness and ability to live in isolated hardship areas for extended periods of time. Much of the core staff of these PVOs have dedicated their careers to work in the region. Because of their predominant presence in the region, these PVOs can identify and attract the highly qualified individuals with the requisite skills, knowledge and experience necessary for the additional activities planned under CARPE.

The three PVOs are the only U.S. conservation organizations with significant environmental programs and ongoing projects in the region. WCS, for example, is implementing projects in Noubalé-Ndoki in the Republic of the Congo and in the Ituri Forest in Zaire. WWF is implementing the Dzangha-Sangha Project in the Central African Republic (C.A.R.) and is considering a large effort in Bangassou, also in the C.A.R. WWF and WCS have collaborated in implementing a program in Korup National Park in Cameroon, are initiating joint activities in southeastern Cameroon (the Lobeke area) and have active programs in Gabon. WWF is also active in the region as one of the three PVOs making up the consortium implementing the Biodiversity Support Program (BSP). The PVO/NGO NRMS project has been active in Cameroon since 1991 where it has established regional capability to provide technical assistance and support to NGOs in the region. Assessment of NGO capabilities have already been conducted in the CAR and Congo. The Project Paper demonstrates (Table 5: U.S. PVO Conservation Activities in Central Africa (on-going, recently completed, or proposed) and in Annex C Country-specific Analysis) the extent and depth of the involvement of the subject PVOs in the region.

In a review of available documentation, discussions with individuals familiar with the region, and a phone survey of development PVOs, USAID was not able to identify another U.S. registered PVO with the requisite substantive program experience and field presence in the forest areas of the Congo Basin to maximise the chance of success for CARPE implementation activities.

The activities supported by the cooperative agreements will include sustainable field-level activities, such as:

- The development of comprehensive natural resource management and operational plans;
- Detailed biological and socio-economic surveys and assessments and the creation of environmental data bases and natural resource inventories.
- Training and technical support for reserve staff, government and NGO outreach workers and members of the local population;

- The identification and pilot testing of ecologically sustainable income-generating activities (e.g. sustained yield harvesting of timber and non-threatened wildlife species, non-timber forest products, conservation tourism, sport hunting, and agriculture, agroforestry, and fish culture interventions) and limited infrastructure development.
- National and local policy studies; and
- Biological and socio-economic surveys and assessments.

The actual activities to be carried out under these Cooperative Agreements will be elaborated by the recipient PVOs. In preparing the request for proposals USAID will stress the need to ensure that the activities funded are compatible with the broader strategic objectives of CARPE and that the programs of these PVOs in the Congo are sufficiently flexible and broad enough to support other elements of the CARPE Project.

As one of CARPE's objectives will be to increase the level of involvement of U.S. environmental and rural development PVOs in conserving the Congo Basin biosphere, CARPE will include a Grants Program which could be drawn upon by other U.S. environmental and rural development PVOs that wish to establish programs and presence in the region. These grants will be managed by the Biodiversity Support Program and will be open to any institution. Grantee selection will be made based upon independent review of proposals that are submitted.

#### Authority

The authority to award a cooperative agreement for non-competitive procurement to an organization which has predominant capability based on its experience, technical competence, or its existing relationships with cooperating countries or beneficiaries is set forth in A.I.D. Handbook 13, Chapter 2, Section 2B3b.



U.S. AGENCY FOR  
INTERNATIONAL  
DEVELOPMENT

JUL 28 1994

**ACTION MEMORANDUM FOR THE DEPUTY ASSISTANT ADMINISTRATOR FOR AFRICA**

**FROM:** AFR/SD, *Jerome M. Wolgin* (handwritten signature)

**SUBJECT:** Approval of Project Identification Document (PID) for the Central Africa Regional Program for the Environment (CARPE 698-0548)

**Issue:** Your approval is required to approve the PID and authorize the design of a new five year, \$15 million regional project for the Congo Basin. The project will address problems of global, regional, and local significance, in the context of the political and programmatic realities affecting bilateral involvement in the region.

**Discussion:** The United States Government has made a commitment to address global environmental problems; the Environmental Strategy for the Agency focuses on two priority areas: global climate change (GCC) and biodiversity conservation. For Africa, the Congo Basin represents a major resource of considerable global significance. In addition, the survival of over fifty million Africans depends upon the sustainability of the region's natural resource base; it is the Africa Bureau's view that this long term sustainability must be tackled, while seeking approaches for addressing issues of global concern, if such approaches are to be long term and sustainable.

To address these issues effectively over time, the human and institutional capacity within the region must be strengthened, and a link forged between the developmental aspirations of those dependent on the Congo watershed for survival with the global concerns of global climate change and biodiversity conservation.

**Project Purpose:** Identify and establish some of the conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin, in a manner which addresses local, national, regional and international concerns.

**Project Summary:** The United States Agency for International Development (USAID) has had a long history in the region supporting African and American research and community development

groups, and has been a partner with the NASA/Goddard Space Flight Center, the U.S. Department of Interior (USDI) Fish and Wildlife Service, the USDA Forest Service and other collaborating entities, including the World Resources Institute, World Wildlife Fund and the Wildlife Conservation Society in evaluating the extent of the Congo Basin forest area, and defining the GCC and biodiversity problems that can be addressed.

Given the long term nature of the problems at hand, the relatively limited human and institutional capacity in the region, and the political instability in the region, a new regional program can best be directed at defining problems, testing alternative approaches, and promoting cooperation and skills development. The Central African Regional Program for the Environment (CARPE), is designed to be such a flexible program, and can be a foundation for future regional efforts by USAID, other donors, governments and non-governmental organizations (NGOs).

The emphasis of the program is to identify those conditions needed for addressing biodiversity and climate change in the Congo Basin region. Long term overseas expatriate technical assistance is discouraged under this program. Instead, a long term partnership between African and American researchers, Private Voluntary Organizations (PVOs), other U.S. Government (USG) Agencies and other donors will permit the residents of the Congo Basin to begin to develop strategies for improving the management of the Basin's resources.

Executive Committee Project Review (ECPR) Conclusions: An ECPR was held on May 12, 1994, at which it was decided to move forward with the Project Paper design. The results of the ECPR discussions are presented in Attachment A. The CARPE PID (see Attachment B) includes a review of the issues prepared by USAID Bureau for Policy and Program Coordination related to activities in closeout countries.

Conclusion: A regional program that is able to develop a strong foundation without requiring in-country bilateral presence is the recommended approach that can be taken in addressing the global, regional and local issues related to the Congo Basin.

Funds for this project would be allocated from the Development Fund for Africa.

Recommendation: That you sign the attached Project Identification Document (Attachment B) thereby approving the development of a new five year Central Africa Program for the Environment (CARPE 698-0548).

Attachments:

- A. ECPR Summary
- B. PID
- C. Initial Environmental Examination (Approved)

Clearances:

AFR/ARTS/FARA: PJones Draft Date 5/24/94  
AFR/ARTS/FARA: KRushing Draft Date 5/24/94  
AFR/ARTS: CReintsma Draft Date 6/8/94  
AFR/CCWA: PTuebner Draft Date 6/13/94  
AFR/CCWA: RHellyer Draft Date 6/13/94  
AFR/DP: DDay Draft Date 6/27/94  
GC/AFR: MAKleinjan Draft Date 7/18/94  
G/E/ENR: WJohnson Draft Date 6/13/94  
G/E/ENR: MPhilley Draft Date 6/13/94  
PPC/POL/SP: GPrickett Draft Date 6/20/94  
AFR/ARTS: AGetson Draft Date 6/13/94

AFR/ARTS/FARA: JGaudet: JA: 4/15/94: 7-9029: O:\ARTSPUB\FARA\MEMOS\CARPE.FIN

Report on Executive Committee Project Review for Central African Regional Program  
for the Environment (CARPE) Thursday, May 12, 1994

Country:	Congo Basin - Regional
Program Title:	Central African Regional Program for the Environment (CARPE)
Program Number:	698-0548
LOP Funding:	\$15.0 million for first five years of ten year project
FY 95 Obligation:	\$3,000,000
Authorization Venue:	USAID/W AFR/SD/PSGE

## I. Summary

Main issues came about essentially from the new approaches involved in the CARPE Project. The project focuses on an ecosystem approach (contiguous forest area) rather than the customary regional or geographic approach. Secondly, some of the countries involved are USAID non-presence countries.

Project committee needed direction beyond the issues committee.

- Linkages between global and DFA objectives?
- Benefit to Africans - how and where are needs addressed?
- Project Management - role of AFR/SD, AFR/WA, AFR/REDSO/WCA, and G/E/ENR?

The ECPR concluded that the PID was well-written, consistent with Agency and Bureau strategies and presented the foundation of an approach to dealing with global issues in the DFA context including countries in which USAID does not presently have an in-country presence. The Committee recommended authorization to proceed with the allocation of PD&S and other staff resources to complete Project Paper design.

## II. Background and Description

The Congo Basin is the world's second largest contiguous lowland tropical forest, a unique watershed of local, regional and global significance. This is a difficult yet important region in which USAID has a role to play. Our knowledge about the status of the forest, and the rate and cause of its exploitation and deterioration is limited. Its global importance in terms of biodiversity and climate change, while known to be important, is not fully understood. Added to this uncertainty is a complex political and economic situation which limits the ability of USAID to carry out bilateral government-to-government programs in most of the countries in the region.

However, given the importance of the sustainable development of the Congo Basin and the linkages between that development and broader global issues, a resource as critical as that of

the Congo Basin must be used wisely. It is within the self-interest of the United States Government (USG) to support the rational and sustainable development of Central Africa, in a manner which also addresses larger global and regional concerns. While USAID no longer has bilateral programs with physical presence in the six countries encompassing the Congo Basin, there are opportunities for USAID to expand its leadership role among USG agencies and the donor community in general in promoting the sustainable use of the forest resource in Central Africa.

To address this unique problem, the Africa (AFR) and Global (G) Bureaus are recommending a new ten year project, the Central African Regional Program for the Environment, CARPE. This project will be designed to provide a flexible analytical focus and the capability to support field activities through a combination of regional institutions and national governmental and non-governmental institutions. This PID outlines the substantive issues supporting the need for such a project, suggests possible activities to be undertaken, and notes substantive and procedural options that need to be addressed during Project design.

The PID draws upon extensive analytic work carried out over the last two years, in particular the joint AFR/G Bureau report "Central Africa: Global Climate Change and Development", the draft Concept Paper and Project Paper prepared by USAID Cameroon for the CAMPER Project, and "African Biodiversity: Foundation for the Future", report for USAID by the Biodiversity Support Program through an African panel of experts.

## II. Process

The ECPR was held Thursday, May 12, 1994 in Room 6941 NS in Washington, D.C. from 1:30 to 3:00 p.m. In attendance were representatives from AFR/CCWA, AFR/ARTS, AFR/ARTS/ENV, AFR/ARTS/FARA, AFR/DP/PSE, AFR/GC, PPC/POL/SP, G/R&D/ENR, DAA/AFR and State/OES

An issues meeting was held 10:00 to 12:30 pm on Friday, May 6, 1994 in Room 2840 NS. In attendance were representatives from AFR/CCWA, AFR/ARTS, AFR/ARTS/ENV, AFR/ARTS/FARA, AFR/DP/PSE, and AFR/GC. Invited also were PPC/POL/SP, G/R&D/ENR and DAA/AFR.

## III. Resolution of issues

Issue one: To what extent must the Project be linked to global issues and DFA objectives, especially GCC and biodiversity? Is it necessary to have a global context in order to support a regional program?

Discussion: The project is expected to be primarily funded by DFA funds, and therefore must be consistent with Development Fund for Africa objectives and address critical sectoral issues. Additionally the project rationale is founded on the application of activities to address global concerns. The Project Committee concluded that we can design a project that relates to both DFA and Global objectives, but we must resolve this issue in reference to the overall Bureau perspective.

Recommendation: The Project Paper should have AFR Bureau strategies (under DFA), but get general policy guidelines from G Bureau. Evaluation will be measured on the knowledge acquired within project time frame. Practices that lead to conditions for conservation should be identified at mid and final evaluation. PP Design team to develop guidance on analysis of impacts.

Resolved: There is no conflict between DFA and Global objectives.

Issue two: Can we really accomplish something in these countries under difficult local conditions, and how would we measure any impact?

Discussion: The project needs to show direct benefit to Africans and this has to be clearly demonstrated within the project design. The Project Purpose is to "identify and establish some of the conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin". The ECPR discussion established parameters for the Project Paper design on level of impact expected and detail of indicators needed.

Recommendation: Project Paper design team may want to narrow focus to research, testing and demonstration and analysis. Beneficiaries should be identified in the PP.

Resolved: We have a history of accomplishment in the Congo Basin and have reason to believe we can have significant impact under this proposed project. It is recognized that Policies in Basin country governments will be indirectly affected.

Issue Three: What are the management implications of the Project? In particular, how will the project manage the grants component consistent with Bureau technical and managerial personnel constraints?

Discussion: Who has the lead in managing the design, and who will play a more consultative role? Should the Bureau provide the Design Team with the parameters for this issue? AID/W connections to this highly visible project and USG and international PVO partners point to AID/W management, however the roles of REDSO/WCA and the G Bureau relative to management and implementation must also be considered. Connections in this instance to African institutions may require a real effort to establish and maintain. Because the project is DFA funded, the primary management responsibility should rest with the Africa Bureau.

Recommendation: Based on need for a Washington voice; REDSO/WCA experience in only two of the six countries; observation that international and African NGO communication is quick and efficient from DC, and observation that, ultimately, the World Bank and other US-based organizations are going to be involved in the project, it was decided that design and management would be much more effective from Washington, with collaboration from REDSO/WCA.

Resolved: Design and management need to focus on African capacity building. PP design responsibility needs to be pin-pointed, with need to avoid ambiguity (as we

saw in the design of FEWS) and facilitate PP elaboration. It may be better to delay the process until design team can be explicitly identified and design better planned.

#### IV. Resolved Issues

ECPR reviewed resolved issues and sustained recommendations of the Issues Meeting. The recommendations are repeated below for Project Paper design team convenience.

##### Summary of Issues and Concerns

**Issue One: Donor Coordination:** With no USAID mission presence, can we effectively relate to other donors, and assure effective policy dialogue among stakeholders? With the limited funding, can we go it alone and make an impact; Does other donors activity obviate the need for USAID participation?

Discussion: USAID has been the dominant donor on GCC and biodiversity conservation in the Congo Basin countries; Other donors include the German GTZ, the multi-donor Global Environmental Facility (GEF) and numerous international PVOs. CARPE, with its emphasis on regional strategies and capacity building, is expected to leverage GEF and other funds, which otherwise would not be available to the region. The African Network for the Environment and Sustainable Development in Africa (NESDA) is a resource to facilitate donor coordination.

Resolution: The PP will include a section addressing donor coordination, stating that the Project will coordinate with other donors to leverage additional resources for increased impact and to ensure that our efforts are not undermined by other donor activities.

**Issue two:** Should the Project focus on the humid tropical forests of Africa, thus including afro-montane forests of Rwanda/Burundi as well as the forests of coastal west Africa or just focus on the lowland forest of central Africa?

Discussion: USAID management constraints, common environmental approaches and potential partners all argue for limited project scope and against the expansion of project concept beyond the borders of the Congo river basin. The other countries and ecosystems while important globally and locally are not identified as focal areas by the Agency and Bureau strategies.

Resolution: The project will remain focused on the six Congo River basin countries of Cameroon, Central African Republic, Congo, Equatorial Guinea, Gabon, and Zaire.

**Issue three:** Countries of the region are periodically in violation of the Brooke Amendment to the FAA. Would this restriction limit project effectiveness?

Discussion: Section 549(b) of the 1994 appropriations act "withstands" Brooke where assistance is "for the purpose of supporting tropical forestry and energy programs aimed at reducing the emissions of greenhouse gases with regard to the key countries in which deforestation and energy policy would make a significant contribution to

Resolution: The PP design team will examine implementation options and recommend structure and timing for all three components.

Concern three: What PP design resources are available? Is there provision for African participation in the design of the project?

Discussion: There are several resources available, for example, AFR/ARTS/FARA funded substantial analytic research that includes recommendations for the "Africa Bureau Global Climate Change Action Plan". Also, it should be noted an upcoming two day meeting of the US-based community, who are active in Central Africa natural resource management will convene on May 18 and 19. These meetings will include the participation of two REDSO/WCA specialists who will play a major role in the CARPE PP design. A third resource will be the proceedings of the World Wildlife Fund (WWF)/USDA Forest Service/Forest Action Network conference on tropical forest conservation will be held in Bangui, CAR May 30 to June 4, 1994.

Resolution: In addition to site visits, project design will conclude with a workshop in July to confirm design strategy and offer invitation for application.

Concern Four: (From GC) How would any funding for actual endowments occur?

Discussion: The issues meeting clarified that the project could support a feasibility analysis, and preparatory work, for establishing a Congo Basin Foundation, but that any funding for an actual endowment would occur through an amendment to the Project Paper.

Resolution: The Project Paper will note that any funding for an actual endowment would occur through an amendment to the Project Paper.

Concern Five: (From DP) How will the Project ensure that the grant component will be directed towards the Project's objectives?

Discussion: As a regional activity, the project should focus on a thorough analysis of the region and networking among donor countries, host countries and NGO actors. A consensus should be built around the facts of resources value and use as a foundation for concerted conservation/development action in the next phase of this activity. A minor share of the budget should be devoted to grants for experimental solutions.

Resolution: The PID will include a mandatory requirement that all grants include a capacity building component, and be focused on Project objectives.

global warming".

Resolution: The Project Paper design team will clarify legal constraints and incentives to assistance in the region.

Issue four: How will the project ensure participation by Africans in the project implementation?

Resolution: The Project Paper design will examine options consistent with USAID reorganization and would establish mechanisms for African participation.

Issue five: Is the focus of the project/grants component on research and development of new conservation strategies, or on implementation of conservation activities? How will the project show measurable impact?

Resolution: The focus of the grants component is on development of new, usable conservation techniques, not implementation of accepted conservation activities. The criteria for award of grants should make this clear. The PP will develop means for measuring the project's impact. For the development of new conservation mechanisms component, this would include successful application of new mechanisms developed under the project. People-level impact could also be measured through the training component. In the Project Paper, the purpose could be stated along the lines of "Development and application of new mechanisms and practices required for the conservation of... "

Concern one: For those countries where involvement with the national government is to be kept to a minimum, how will the Project identify and support conditions.

Discussion: Legislation currently prohibits transfers of funds to the Government of Zaire and there are other policy concerns about working with the GOZ. Other governments over LOP who might be in similar circumstance. New guidance to Ambassadors includes a more active role in environmental issues.

Resolution: The Project Paper will examine the extent of any necessary relationships with sensitive governments and outline the policy parameters for any transactions with them.

Concern two: What is the PP design strategy?

Discussion: The present approach is for three interdependent components. Component one for the field and research/analysis grants would be implemented with an Invitation for Application (IA). Options include an umbrella grants management entity or a consortium of implementing entities with provision for external grants. Component two for peer review, capacity building and technical support and component three for planning and regional coordination would be implemented primarily through G/E project OYBs and add-ons.

AGENCY FOR INTERNATIONAL DEVELOPMENT  
PROJECT IDENTIFICATION DOCUMENT  
FACESHEET (PID)

A-Add  
C-Change  
D-Delete

COUNTRY/ENTITY  
AID/W

BUREAU/OFFICE  
ARTS/FARA

ESTIMATED FY OF AUTHORIZATION/OBLIGATION/COMPLETION  
A. Initial FY [95]  
B. Final FY [99]  
C. FISCAL [99] (Sept)

3. PROJECT NUMBER  
[698-0548]

5. PROJECT TITLE (maximum 40 characters)  
[Central Africa Regional Program  
for the Environment - CARPE]

7. ESTIMATED COSTS (\$000 OR EQUIVALENT, \$1 -)

FUNDING SOURCE		LIFE OF PROJECT
A. AID		15,000
B. Other		
C. Host Country		
D. Other Donor(s)		
TOTAL		15,000

8. PROPOSED BUDGET AID FUNDS (\$000)

A. ATTRIBUTION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE	D. 1ST FY.	E. LIFE OF PROJECT
1) DFA	190	160	3,000	15,000
2)				
3)				
4)				
TOTAL			3,000	15,000

9. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)  
160 | 060(7) | 093

10. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code	EVER	EVMP	EVSC	BDV	NRH	NFM
B. Amount	9,000	3,000	3,000	(SI)	(SI)	(SI)

11. PROJECT PURPOSE (maximum 450 characters)

Identify and begin to establish the conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin, in a manner which addresses local, national, regional and international concerns.

12. RESOURCES REQUIRED FOR PROJECT DEVELOPMENT

Staff: Project Development Officer (Team Leader); Environmental Specialist (Biodiversity & Global Climate Change); AAAS Biodiversity Advisor (G/R&D); AID/W Biodiversity Advisor (AFR/ARTS/FARA); AID/W NRM Policy Advisor (AFR/ARTS/FARA); Regional Environmental Officer (REDSO/WCA).

\$150,000 Design Team 8 weeks (incl. travel)

13. SIGNATURE: *Anthony Fields*

14. TITLE: Deputy Asst. Administrator

15. DATE DOCUMENT RECEIVED BY AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION: 07/29/95

16. PROJECT DOCUMENT ACTION TAKEN

<input type="checkbox"/>	S - Suspended	CA - Conditionally Approved
<input type="checkbox"/>	A - Approval	DD - Decision Deferred
<input type="checkbox"/>	D - Disapproval	

17. ACTION REFERENCE

18. ACTION DATE: 07/29/95

## Annex H. STATUTORY CHECKLIST

Handbook 3: Project Assistance  
Appendix 3M: AID Project Statutory Checklist  
Introduction  
1993/04/19  
1982/09/30

### APPENDIX 3M AID PROJECT STATUTORY CHECKLIST

#### Introduction

The statutory checklist is divided into two parts:

- 3M(1) - Country Checklist; and
- 3M(2) - Assistance Checklist.

The Country Checklist, composed of items affecting the eligibility for foreign assistance of a country as a whole, is to be reviewed and completed by AID/W at the beginning of each fiscal year. As the CARPE project does not intend to provide direct foreign assistance to any of the governments in the region, statutory provisions will not apply. The Project Officer will verify the spirit and intent of federal law, regulation and policy should governments benefit from CARPE interventions.

The Assistance Checklist focuses on statutory items that directly concern assistance resources.

The Country and Assistance Checklists are organized according to categories of items relating to Development Assistance, the Economic Support Fund, or both.

These Checklists include the applicable statutory criteria from the Foreign Assistance Act of 1961 ("FAA"); various foreign assistance, foreign relations, anti-narcotics and international trade authorization enactments; and the FY 1993 Foreign Assistance Appropriations Act ("FY 1993 Appropriations Act").

These Checklists do not list every statutory provision that might be relevant. For example, they do not include country-specific limitations enacted, usually for a single year, in a foreign assistance appropriations act. Instead, the Checklists are intended to provide a convenient reference for provisions of relatively great importance and general applicability.

Prior to an actual obligation of funds, CARPE management will review any Checklist completed at an earlier phase in a project or program cycle to determine whether more recently enacted provisions of law included on the most recent Checklist may now apply.

## 3M(2) - ASSISTANCE CHECKLIST

Listed below are statutory criteria applicable to the assistance resources themselves, rather than to the eligibility of a country to receive assistance. This section is divided into three parts. Part A includes criteria applicable to both Development Assistance and Economic Support Fund resources. Part B includes criteria applicable only to Development Assistance resources. Part C includes criteria applicable only to Economic Support Funds and is, therefore, not included in this Annex.

### A. CRITERIA APPLICABLE TO BOTH DEVELOPMENT ASSISTANCE AND ECONOMIC SUPPORT FUNDS

1. **Host Country Development Efforts** (FAA Sec. 601(a)): Information and conclusions on whether assistance will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions.

*While assistance planned is not direct to governments but mainly through international and African PVO/NGOs and other U.S. institutions, an intent of the project is the development of a skilled cadre of environmentally conscious African development specialist in and outside of the government and also policy environment that conserves tropical forests and the biodiversity they contain. CARPE will contribute to development efforts of countries in the region.*

2. **U.S. Private Trade and Investment** (FAA Sec. 601(b)): Information and conclusions on how assistance will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

*Yes, development of tourism and other non-timber forest products is an important planned result of CARPE. U.S. private sector trade and investment is intended to be important in insuring financial sustainability of project interventions.*

### 3. Congressional Notification

a. **General requirement** (FY 1993 Appropriations Act Sec. 522; FAA Sec. 634A): If money is to be obligated for an activity not previously justified to Congress, or for an amount in excess of amount previously justified to Congress, has Congress been properly notified (unless the Appropriations Act notification requirement has been waived because of substantial risk to human health or welfare)?

*CARPE (698-0548) was incorporated into the USAID FY 1995 Congressional Presentation. A Congressional Notification was submitted ??? and expired without objection on ???.*

b. **Notice of new account obligation** (FY 1993 Appropriations Act Sec. 514): If funds are being obligated under an appropriation account to which they were not appropriated, has the President consulted with and provided a written justification to the House and Senate Appropriations Committees and has such obligation been subject to regular notification procedures?

*Does not apply.*

c. **Cash transfers and nonproject sector assistance** (FY 1993 Appropriations Act Sec. 571(b)(3)): If funds are to be made available in the form of cash transfer or nonproject sector assistance, has the Congressional notice included a detailed description of how the funds will be used, with a discussion of U.S. interests to be served and a description of any economic policy reforms to be promoted?

*Yes.*

4. **Engineering and Financial Plans** (FAA Sec. 611(a)): Prior to an obligation in excess of \$500,000, will there be: (a) engineering, financial or other plans necessary to carry out the assistance; and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

*Yes.*

5. **Legislative Action** (FAA Sec. 611(a)(2)): If legislative action is required within recipient country with respect to an obligation in excess of \$500,000, what is the basis for a reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the assistance?

*No national government legislative action is required.*

6. **Water Resources** (FAA Sec. 611(b); FY 1993 Appropriations Act Sec. 501): If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)?

*No construction within the scope of FAA Sec. 611(b) is anticipated.*

7. **Cash Transfer and Sector Assistance** (FY 1993 Appropriations Act Sec. 571(b)): Will cash transfer or nonproject sector assistance be maintained in a separate account and not commingled with other funds (unless such requirements are waived by Congressional notice for nonproject sector assistance)?

*Yes.*

**8. Capital Assistance (FAA Sec. 611(e)):** If project is capital assistance (*e.g.*, construction), and total U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability to maintain and utilize the project effectively?

*No construction within the scope of FAA Sec. 611(e) is anticipated.*

**9. Multiple Country Objectives (FAA Sec. 601(a)):** Information and conclusions on whether projects will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

*See discussion under point 1.*

**10. U.S. Private Trade (FAA Sec. 601(b)):** Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

*See discussion under point 2.*

#### **11. Local Currencies**

**a. Recipient Contributions (FAA Secs. 612(b), 636(h)):** Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.

*Does not apply.*

**b. U.S.-Owned Currency (FAA Sec. 612(d)):** Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

*No.*

**c. Separate Account (FY 1993 Appropriations Act Sec. 571).** If assistance is furnished to a foreign government under arrangements which result in the generation of local currencies:

(1) Has USAID (a) required that local currencies be deposited in a separate account established by the recipient government, (b) entered into an agreement with that government providing the amount of local currencies to be generated and the terms and conditions under which the currencies so deposited may be utilized, and (c) established by

agreement the responsibilities of AID and that government to monitor and account for deposits into and disbursements from the separate account?

(2) Will such local currencies, or an equivalent amount of local currencies, be used only to carry out the purposes of the DA or ESF chapters of the FAA (depending on which chapter is the source of the assistance) or for the administrative requirements of the United States Government?

(3) Has USAID taken all appropriate steps to ensure that the equivalent of local currencies disbursed from the separate account are used for the agreed purposes?

(4) If assistance is terminated to a country, will any unencumbered balances of funds remaining in a separate account be disposed of for purposes agreed to by the recipient government and the United States Government?

*As no assistance is planned to foreign governments no generation of foreign currencies is anticipated.*

## 12. Trade Restrictions

a. **Surplus Commodities** (FY 1993 Appropriations Act Sec. 520(a)): If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?

*Commodities produced for export are not likely to be surplus on world markets nor cause substantial injury to U. S. producers. On the contrary, benefits to U.S. producers is anticipated.*

b. **Textiles (Lautenberg Amendment)** (FY 1993 Appropriations Act Sec. 520(c)): Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807," which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel?

*No.*

13. **Tropical Forests** (FY 1991 Appropriations Act Sec. 533(c)(3)(as referenced in section 532(d) of the FY 1993 Appropriations Act): Will funds be used for any program, project or activity which would (a) result in any significant loss of tropical forests, or (b) involve industrial timber extraction in primary tropical forest areas?

*The project goal is to reduce the rate of deforestation of the tropical forests of the Congo Basin and a reduction in rate of deforestation is an anticipated result. To accomplish this "involvement" of the industrial timber extraction industry will be necessary. For further details see Annex E for the Programmatic Environmental Assessment and the Primary Tropical Forestry Assessment.*

14. **PVO Assistance**

a. **Auditing and registration** (FY 1993 Appropriations Act Sec. 536): If assistance is being made available to a PVO, has that organization provided upon timely request any document, file, or record necessary to the auditing requirements of USAID, and is the PVO registered with USAID?

*All PVOs participating will be registered with USAID and in compliance with auditing requirements.*

b. **Funding sources** (FY 1993 Appropriations Act, Title II, under heading "Private and Voluntary Organizations"): If assistance is to be made to a United States PVO (other than a cooperative development organization), does it obtain at least 20 percent of its total annual funding for international activities from sources other than the United States Government?

*Yes.*

15. **Project Agreement Documentation** (State Authorization Sec. 139 (as interpreted by conference report)): Has confirmation of the date of signing of the project agreement, including the amount involved, been cabled to State L/T and USAID LEG within 60 days of the agreement's entry into force with respect to the United States, and has the full text of the agreement been pouched to those same offices?

*Does not apply as no bilateral agreements with governments are planned.*

16. **Metric System** (Omnibus Trade and Competitiveness Act of 1988 Sec. 5164, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through USAID policy): Does the assistance activity use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will USAID specifications use metric units of measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for

example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?

Yes.

17. **Women in Development** (FY 1993 Appropriations Act, Title II, under heading "Women in Development"): Will assistance be designed so that the percentage of women participants will be demonstrably increased?

Yes.

18. **Regional and Multilateral Assistance** (FAA Sec. 209): Is assistance more efficiently and effectively provided through regional or multilateral organizations? If so, why is assistance not so provided? Information and conclusions on whether assistance will encourage developing countries to cooperate in regional development programs.

*Regional African institutions such as Network for the Environment and Sustainable Development in Africa (NESDA), the Forest Action Network and the Foundation Central Africaine pour la Sauvegarde des Ressources Naturelles (FOCSARENA) and multilateral organizations such as the World Bank are intended to be partners in the implementation of CARPE. Encouraging the six countries of the region to cooperate in regional development programs and international fora is a central component of the project*

19. **Abortions** (FY 1993 Appropriations Act, Title II, under heading "Population, DA," and Sec. 524):

a. Will assistance be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization?

b. Will any funds be used to lobby for abortion?

*No, this would be beyond project scope.*

20. **Cooperatives** (FAA Sec. 111): Will assistance help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward a better life?

*Maybe. Cooperatives were not identified during project design as assistance partners but are not excluded from participation in the project. Assistance to the rural and urban poor to help themselves to a better life is central to the Development Fund for Africa and an expected result of the project.*

## 21. U.S.-Owned Foreign Currencies

a. **Use of currencies** (FAA Secs. 612(b), 636(h); FY 1993 Appropriations Act Secs. 507, 509): Are steps being taken to assure that, to the maximum extent possible, foreign currencies owned by the U.S. are utilized in lieu of dollars to meet the cost of contractual and other services.

*Does not apply.*

b. **Release of currencies** (FAA Sec. 612(d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

*Does not apply.*

## 22. Procurement

a. **Small business** (FAA Sec. 602(a)): Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed?

*Yes. See especially Section titled "U.S. small and disadvantaged entities".*

b. **U.S. procurement** (FAA Sec. 604(a) as amended by section 597 of the FY 1993 Appropriations Act): Will all procurement be from the U.S., the recipient country, or developing countries except as otherwise determined in accordance with the criteria of this section?

*Yes.*

c. **Marine insurance** (FAA Sec. 604(d)): If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company?

*Does not apply.*

d. **Non-U.S. agricultural procurement** (FAA Sec. 604(e)): If non-U.S. procurement of agricultural commodity or product thereof is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.)

*No such procurement anticipated.*

e. **Construction or engineering services** (FAA Sec. 604(g)): Will construction or engineering services be procured from firms of advanced developing countries which are otherwise eligible under Code 941 and which have attained a competitive capability in

international markets in one of these areas? (Exception for those countries which receive direct economic assistance under the FAA and permit United States firms to compete for construction or engineering services financed from assistance programs of these countries.)

*No such procurement anticipated.*

f. **Cargo preference shipping** (FAA Sec. 603): Is the shipping excluded from compliance with the requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 percent of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates?

*No, shipping is not excluded but is also not anticipated.*

g. **Technical assistance** (FAA Sec. 621(a)): If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? Will the facilities and resources of other Federal agencies be utilized, when they are particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

*No significant technical assistance is anticipated by private enterprise. Federal agency participation will be in compliance with FAA Sec. 621(a).*

h. **U.S. air carriers** (International Air Transportation Fair Competitive Practices Act, 1974): If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available?

*Yes. Mandatory language in all cooperative agreements, RSSAs, PASAs and grants will require U.S. carriers to the extent such service is available.*

i. **Termination for convenience of U.S. Government** (FY 1993 Appropriations Act Sec. 504): If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States?

*Yes.*

j. **Consulting services** (FY 1993 Appropriations Act Sec. 523): If assistance is for consulting service through procurement contract pursuant to 5 U.S.C. 3109, are contract expenditures a matter of public record and available for public inspection (unless otherwise provided by law or Executive order)?

*None anticipated.*

k. **Metric conversion** (Omnibus Trade and Competitiveness Act of 1988, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through USAID policy): Does the assistance program use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will USAID specifications use metric units of measure from the earliest programmatic stages, and from the documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?

*Yes.*

l. **Competitive Selection Procedures** (FAA Sec. 601(e)): Will the assistance utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

*Generally, except as provided in Annex F.*

### 23. **Construction**

a. **Capital project** (FAA Sec. 601(d)): If capital (*e.g.*, construction) project, will U.S. engineering and professional services be used?

*Not a capital project.*

b. **Construction contract** (FAA Sec. 611(c)): If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable?

*Yes.*

c. **Large projects, Congressional approval** (FAA Sec. 620(k)): If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million (except for productive enterprises in Egypt that were described in the Congressional Presentation), or does assistance have the express approval of Congress?

*Does not apply.*

24. **U.S. Audit Rights** (FAA Sec. 301(d)): If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights?

*Yes.*

25. **Communist Assistance (FAA Sec. 620(h)).** Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries?

*This is beyond the scope of the CARPE project.*

26. **Narcotics**

a. **Cash reimbursements (FAA Sec. 483):** Will arrangements preclude use of financing to make reimbursements, in the form of cash payments, to persons whose illicit drug crops are eradicated?

*Yes.*

b. **Assistance to narcotics traffickers (FAA Sec. 487):** Will arrangements take "all reasonable steps" to preclude use of financing to or through individuals or entities which we know or have reason to believe have either: (1) been convicted of a violation of any law or regulation of the United States or a foreign country relating to narcotics (or other controlled substances); or (2) been an illicit trafficker in, or otherwise involved in the illicit trafficking of, any such controlled substance?

*Yes.*

27. **Expropriation and Land Reform (FAA Sec. 620(g)):** Will assistance preclude use of financing to compensate owners for expropriated or nationalized property, except to compensate foreign nationals in accordance with a land reform program certified by the President?

*Yes.*

28. **Police and Prisons (FAA Sec. 660):** Will assistance preclude use of financing to provide training, advice, or any financial support for police, prisons, or other law enforcement forces, except for narcotics programs?

*No. Training and other support will be provided to protected area managers with law enforcement responsibilities as provided by waiver in the 1990 Foreign Assistance Appropriations Act which permitted such support to biological diversity activities as defined by FAA Section 119(B).*

29. **CIA Activities (FAA Sec. 662):** Will assistance preclude use of financing for CIA activities?

*Yes.*

30. **Motor Vehicles (FAA Sec. 636(i)):** Will assistance preclude use of financing for purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained?

*Yes. A waiver, however, is expected to be obtained.*

31. **Military Personnel (FY 1993 Appropriations Act Sec. 503):** Will assistance preclude use of financing to pay pensions, annuities, retirement pay, or adjusted service compensation for prior or current military personnel?

*Yes.*

32. **Payment of U.N. Assessments (FY 1993 Appropriations Act Sec. 505):** Will assistance preclude use of financing to pay U.N. assessments, arrearages or dues?

*Does not apply.*

33. **Multilateral Organization Lending (FY 1993 Appropriations Act Sec. 506):** Will assistance preclude use of financing to carry out provisions of FAA section 209(d) (transfer of FAA funds to multilateral organizations for lending)?

*Yes.*

34. **Export of Nuclear Resources (FY 1993 Appropriations Act Sec. 510):** Will assistance preclude use of financing to finance the export of nuclear equipment, fuel, or technology?

*No.*

35. **Repression of Population (FY 1993 Appropriations Act Sec. 511):** Will assistance preclude use of financing for the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights?

*Does not apply.*

36. **Publicity or Propaganda (FY 1993 Appropriations Act Sec. 516):** Will assistance be used for publicity or propaganda purposes designed to support or defeat legislation pending before Congress, to influence in any way the outcome of a political election in the United States, or for any publicity or propaganda purposes not authorized by Congress?

*No.*

37. **Marine Insurance** (FY 1993 Appropriations Act Sec. 560): Will any USAID contract and solicitation, and subcontract entered into under such contract, include a clause requiring that U.S. marine insurance companies have a fair opportunity to bid for marine insurance when such insurance is necessary or appropriate?

*Yes.*

38. **Exchange for Prohibited Act** (FY 1993 Appropriations Act Sec. 565): Will any assistance be provided to any foreign government (including any instrumentality or agency thereof), foreign person, or United States person in exchange for that foreign government or person undertaking any action which is, if carried out by the United States Government, a United States official or employee, expressly prohibited by a provision of United States law?

*None is planned.*

39. **Commitment of Funds** (FAA Sec. 635(h)): Does a contract or agreement entail a commitment for the expenditure of funds during a period in excess of 5 years from the date of the contract or agreement?

*No.*

40. **Impact on U.S. Jobs** (FY 1993 Appropriations Act, Sec. 599):

(a) Will any financial incentive be provided to a business located in the U.S. for the purpose of inducing that business to relocate outside the U.S. in a manner that would likely reduce the number of U.S. employees of that business?

(b) Will assistance be provided for the purpose of establishing or developing an export processing zone or designated area in which the country's tax, tariff, labor, environment, and safety laws do not apply? If so, has the President determined and certified that such assistance is not likely to cause a loss of jobs within the U.S.?

(c) Will assistance be provided for a project or activity that contributes to the violation of internationally recognized workers rights, as defined in section 502(a)(4) of the Trade Act of 1974, of workers in the recipient country?

*No.*

## B. CRITERIA APPLICABLE TO DEVELOPMENT ASSISTANCE ONLY

1. **Agricultural Exports (Bumpers Amendment)** (FY 1993 Appropriations Act Sec. 521(b), as interpreted by conference report for original enactment): If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training), are such

activities: (1) specifically and principally designed to increase agricultural exports by the host country to a country other than the United States, where the export would lead to direct competition in that third country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (2) in support of research that is intended primarily to benefit U.S. producers?

*(1) No. (2) No, primary benefit is African but no harm is anticipated to U.S. producers.*

**2. Tied Aid Credits** (FY 1993 Appropriations Act, Title II, under heading "Economic Support Fund"): Will DA funds be used for tied aid credits?

*No.*

**3. Appropriate Technology** (FAA Sec. 107): Is special emphasis placed on use of appropriate technology (defined as relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?

*Yes. Testing and demonstration of field approaches is a key condition to achieve project purpose.*

**4. Indigenous Needs and Resources** (FAA Sec. 281(b)): Describe extent to which the activity recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

*African capacity building and participation in project interventions is a vital element in CARPE. See especially discussion under "Project Outputs".*

**5. Economic Development** (FAA Sec. 101(a)): Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?

*Yes, to both.*

**6. Special Development Emphases** (FAA Secs. 102(b), 113, 281(a)): Describe extent to which activity will: (a) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (b) encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e)

utilize and encourage regional cooperation by developing countries.

*CARPE will identify and begin to establish the conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin, in a manner which addresses local, national, regional and international concerns. See especially "Project Strategic Plan".*

**7. Recipient Country Contribution (FAA Secs. 110, 124(d)):** Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?

*Countries are "relatively least developed" but no direct country assistance is anticipated.*

**8. Benefit to Poor Majority (FAA Sec. 128(b)):** If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority?

*Yes.*

**9. Abortions (FAA Sec. 104(f); FY 1993 Appropriations Act, Title II, under heading "Population, DA," and Sec. 534):**

a. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions?

b. Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations?

c. Are any of the funds to be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization?

d. Will funds be made available only to voluntary family planning projects which offer, either directly or through referral to, or information about access to, a broad range of family planning methods and services?

e. In awarding grants for natural family planning, will any applicant be discriminated against because of such applicant's religious or conscientious commitment to offer only natural family planning?

f. Are any of the funds to be used to pay for any biomedical research which relates, in

whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning?

g. Are any of the funds to be made available to any organization if the President certifies that the use of these funds by such organization would violate any of the above provisions related to abortions and involuntary sterilization?

*No.*

10. **Contract Awards (FAA Sec. 601(e)):** Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

*Yes.*

11. **Disadvantaged Enterprises (FY 1993 Appropriations Act Sec. 563):** What portion of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, colleges and universities having a student body in which more than 40 percent of the students are Hispanic Americans, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?

*25%.*

12. **Biological Diversity (FAA Sec. 119(g)):** Will the assistance: (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystems or other wildlife habitats; (c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas?

*(a) Yes. (b) No. (c) Yes (d) No.*

13. **Tropical Forests (FAA Sec. 118; FY 1991 Appropriations Act Sec. 533(c) as referenced in section 532(d) of the FY 1993 Appropriations Act):**

a. **USAID Regulation 16:** Does the assistance comply with the environmental procedures set forth in USAID Regulation 16?

*Yes.*

b. **Conservation:** Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (1) stress the importance of conserving and sustainably managing forest resources; (2) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help countries identify and implement alternatives to colonizing forested areas; (3) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (4) help end destructive slash-and-burn agriculture by supporting stable and productive farming practices; (5) help conserve forests which have not yet been degraded by helping to increase production on lands already cleared or degraded; (6) conserve forested watersheds and rehabilitate those which have been deforested; (7) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal, and processing; (8) support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (9) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis, by making the establishment of protected areas a condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas; (10) seek to increase the awareness of U.S. Government agencies and other donors of the immediate and long-term value of tropical forests; (11) utilize the resources and abilities of all relevant U.S. government agencies; (12) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land; and (13) take full account of the environmental impacts of the proposed activities on biological diversity?

*Yes.*

c. **Forest degradation:** Will assistance be used for: (1) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; (2) actions which will significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas; (3) activities which would result in the conversion of forest lands to the rearing of livestock; (4) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands; (5) the colonization of forest lands; or (6) the construction of dams or other water control structures which flood relatively undegraded forest lands, unless with respect to each such activity an environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?

*No.*

d. **Sustainable forestry:** If assistance relates to tropical forests, will project assist countries in developing a systematic analysis of the appropriate use of their total tropical forest resources, with the goal of developing a national program for sustainable forestry?

*Yes.*

e. **Environmental impact statements:** Will funds be made available in accordance with provisions of FAA Section 117(c) and applicable USAID regulations requiring an environmental impact statement for activities significantly affecting the environment?

*Yes.*

14. **Energy** (FY 1991 Appropriations Act Sec. 533(c) as referenced in section 532(d) of the FY 1993 Appropriations Act): If assistance relates to energy, will such assistance focus on: (a) end-use energy efficiency, least-cost energy planning, and renewable energy resources, and (b) the key countries where assistance would have the greatest impact on reducing emissions from greenhouse gases?

*Yes.*

15. **Debt-for-Nature Exchange** (FAA Sec. 463): If project will finance a debt-for-nature exchange, describe how the exchange will support protection of: (a) the world's oceans and atmosphere, (b) animal and plant species, and (c) parks and reserves; or describe how the exchange will promote: (d) natural resource management, (e) local conservation programs, (f) conservation training programs, (g) public commitment to conservation, (h) land and ecosystem management, and (i) regenerative approaches in farming, forestry, fishing, and watershed management.

*No "debt for nature" exchange is anticipated.*

16. **Deobligation/Reobligation** (FY 1993 Appropriations Act Sec. 515): If deob/reob authority is sought to be exercised in the provision of DA assistance, are the funds being obligated for the same general purpose, and for countries within the same region as originally obligated, and have the House and Senate Appropriations Committees been properly notified?

*Does not apply.*

#### 17. **Loans**

a. **Repayment capacity** (FAA Sec. 122(b)): Information and conclusion on capacity of the country to repay the loan at a reasonable rate of interest.

*Does not apply.*

b. **Long-range plans** (FAA Sec. 122(b)): Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities?

*Yes.*

c. **Interest rate** (FAA Sec. 122(b)): If development loan is repayable in dollars, is interest rate at least 2 percent per annum during a grace period which is not to exceed ten years, and at least 3 percent per annum thereafter?

*Does not apply.*

d. **Exports to United States** (FAA Sec. 620(d)): If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20 percent of the enterprise's annual production during the life of the loan, or has the requirement to enter into such an agreement been waived by the President because of a national security interest?

*Does not apply.*

18. **Development Objectives** (FAA Secs. 102(a), 111, 113, 281(a)): Extent to which activity will: (1) effectively involve the poor in development, by expanding access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (2) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (3) support the self-help efforts of developing countries; (4) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (5) utilize and encourage regional cooperation by developing countries?

*CARPE will identify and begin to establish the conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin, in a manner which addresses local, national, regional and international concerns. See especially "Project Strategic Plan".*

19. **Agriculture, Rural Development and Nutrition, and Agricultural Research** (FAA Secs. 103 and 103A):

a. **Rural poor and small farmers:** If assistance is being made available for agriculture, rural development or nutrition, describe extent to which activity is specifically designed to increase productivity and income of rural poor; or if assistance is being made available for agricultural research, has account been taken of the needs of small farmers, and extensive use

of field testing to adapt basic research to local conditions shall be made.

b. **Nutrition:** Describe extent to which assistance is used in coordination with efforts carried out under FAA Section 104 (Population and Health) to help improve nutrition of the people of developing countries through encouragement of increased production of crops with greater nutritional value; improvement of planning, research, and education with respect to nutrition, particularly with reference to improvement and expanded use of indigenously produced foodstuffs; and the undertaking of pilot or demonstration programs explicitly addressing the problem of malnutrition of poor and vulnerable people.

c. **Food security:** Describe extent to which activity increases national food security by improving food policies and management and by strengthening national food reserves, with particular concern for the needs of the poor, through measures encouraging domestic production, building national food reserves, expanding available storage facilities, reducing post harvest food losses, and improving food distribution.

*CARPE will identify and begin to establish the conditions and practices required for the conservation and sustainable use of the natural resources of the Congo Basin, in a manner which addresses local, national, regional and international concerns. See especially "Project Strategic Plan".*

20. **Population and Health** (FAA Secs. 104(b) and (c)): If assistance is being made available for population or health activities, describe extent to which activity emphasizes low-cost, integrated delivery systems for health, nutrition and family planning for the poorest people, with particular attention to the needs of mothers and young children, using paramedical and auxiliary medical personnel, clinics and health posts, commercial distribution systems, and other modes of community outreach.

*Does not apply.*

21. **Education and Human Resources Development** (FAA Sec. 105): If assistance is being made available for education, public administration, or human resource development, describe (a) extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, and strengthens management capability of institutions enabling the poor to participate in development; and (b) extent to which assistance provides advanced education and training of people of developing countries in such disciplines as are required for planning and implementation of public and private development activities.

*One end of project condition is "Development, within the countries in the Congo Basin, of a cadre of trained and committed environmentally-conscious African development specialists (within both the government and non-governmental sectors) that can serve as the nucleus for the sensitization of national policy makers and the public to the importance of conserving their natural resource base."*

22. **Energy, Private Voluntary Organizations, and Selected Development Activities** (FAA Sec. 106): If assistance is being made available for energy, private voluntary organizations, and selected development problems, describe extent to which activity is:

a. concerned with data collection and analysis, the training of skilled personnel, research on and development of suitable energy sources, and pilot projects to test new methods of energy production; and facilitative of research on and development and use of small-scale, decentralized, renewable energy sources for rural areas, emphasizing development of energy resources which are environmentally acceptable and require minimum capital investment;

*Does not apply.*

b. concerned with technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;

*Key end of project conditions include: 1) Implementation of joint efforts at integrated conservation and development involving both environmental and development PVOs and NGOs; 2) Creation of partnerships among environmental and development-oriented NGOs, researchers, governments, and the international community, aimed at collaboratively addressing Global Climate Change, biodiversity, and deforestation issues affecting the Congo Basin; and 3) Establishment of networks of researchers, local and international PVOs and NGOs, policy makers and technicians interested in conserving the Congo Basin's natural resources.*

c. research into, and evaluation of, economic development processes and techniques;

*Does not apply.*

d. reconstruction after natural or manmade disaster and programs of disaster preparedness;

*Does not apply.*

e. for special development problems, and to enable proper utilization of infrastructure and related projects funded with earlier U.S. assistance;

*CARPE will capitalize on important USAID-funded experience and infrastructure in the region.*

f. for urban development, especially small, labor-intensive enterprises, marketing systems for small producers, and financial or other institutions to help urban poor participate in economic and social development.

*Does not apply.*