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PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT FROM THE

GLOBAL ENVIRONMENT FACILITY TRUST FUND

IN THE AMOUNT OF SDR 22.7 million (US$30 MILLION EQUIVALENT)

TO THE FUNDO BRASILEIRO PARA A BIODIVERSIDAD (FUNBIO)

FOR AN

AMAZON REGION PROTECTED AREAS PROJECT

(ARPA)

July 18, 2002

Environmentally and Socially Sustainable Development
Brazil Country Management Unit
Latin America and the Caribbean Regional Office

CURRENCY EQUIVALENTS

(Exchange Rate Effective October 30, 2000)

Currency Unit = Real (R$)
R$2.90 = US$ 1.0
US$0.34 = R$1.00

FISCAL YEAR

January 1 to December 31

ABBREVIATIONS AND ACRONYMS

ABEMA	Association of State Environmental Departments
AIMEX	Association of Wood-exporting Industries of the State of Pará
ANAMA	National Association of Municipalities
APAS	Environmental Protection Areas
ARPA	Amazon Region Protected Areas Project
ASMUBIP	Regional Association of Women from Pico do Papagaio
CAS	Country Assistance Strategy
CBD	Convention on Biological Diversity
CBO	Community Based Organization
CFAA	Country Financial Accountability Assessment
CIR	Roraima Indigenous Council
CMC	Conflict Mediation Committee
CMU	Country Management Unit
CNA	National Agriculture Confederation
CNEA	National Registry of Environmental Entities
CNPA	Council for Protection of Fauna
CNPT	National Center for the Sustainable Development of Traditional Populations
CNS	National Council of Rubber Tappers
COBIO	National Biological Diversity Commission
COIAB	Coordinating Body of Indigenous Organizations of the Brazilian Amazon
CONAMA	National Council for the Environment
CONTAG	National Confederation of Agricultural Workers

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COP	Conference of Parties
CP	Program Committee
CSO	Civil Society Organization
CTC	Scientific and Technical Committee
CTI	Center for Indigenous Work
DAP	Directorate of Protected Areas
DIGET	Directorate of Strategic Management
DIREC	Ecosystems Directorate
DPF	Directorate of Forests
EA	Environmental Assessment
EMBRAPA	Brazilian Agricultural Research Corporation
EMP	Environmental Management Plan
FAP	Protected Areas Trust Fund
FASE	Federation of Social and Educational Assistance Organizations
FMA	National Environmental Fund
FMR	Financial Monitoring and Procurement Report
FOIRN	Federation of Indigenous Organizations of the Rio Negro
FTC	FUNBIO's Technical Commission
FUNAI	National Foundation for Indigenous Affairs
FUNATURA	Pro-Nature Foundation
FUNBIO	Brazilian Biodiversity Fund
G7	Group of Seven
GEF	Global Environment Facility
GEFSEC	Global Environment Facility Secretariat
GIS	Geographical Information System
GOB	Government of Brazil
GTA	Amazon Working Group
GTZ	German Agency for Technical Cooperation
IBAMA	Brazilian Institute for the Environment and Renewable Natural Resources
IBDF	Brazilian Institute for Forest Development
IBGE	Brazilian Institute for Geography
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
ICM	Sales Tax
IDA	International Development Agency
IDB	Interamerican Development Bank
IMAZON	Institute for Man and Environment in the Amazon
INCRA	Land Registry Ministry
INPA	National Institute for Amazon Research
IPAM	Institute for Environmental Research in the Amazon

ISA	Socio-Environmental Institute
ISPN	Institute for Society, Population and Nature
KfW	Kreditanstalt für Wiederaufbau
LCS	Least Cost Selection
M&E	Monitoring and Evaluation
MIS	Management Information System
MMA	Ministry of Environment
MP	Management Plan
MRE	Ministry of External Relations
NCC	National Coordinating Committee
NEP	National Environmental Project
NGO	Nongovernmental Organization
NRPP	Natural Resources Policy Project
OEMA	State Organization for the Environment
OSCIPS	Civil Society Organizations
PA	Protected Area
PAD	Project Appraisal Document
PAE	Emergency Action Plan
PCA	Scientific Advisory Panel
PCD	Project Concept Document
PCU	Project Coordination Unit
PDA	Demonstration Projects
PDF	Project Development Funds
PDPI	Demonstrative Projects for Indigenous Peoples
PLANAFORO	Rondônia Natural Resources Management Project
PM	Management Plan
PNF	National Forest Program
PNUD	United Nations Environmental Program
POA	Annual Operation Plan
PPA	Multi-year Plan
PPDI	Flood Prevention and Protection
PPG7	Pilot Program to Conserve the Brazilian Rain Forest
PPTAL	Project for the Integrated Protection of Indigenous Amazonian Populations and Lands
PROARCO	Program for the Prevention and Control of Forest Fires
PROARPA	ARPA Coordination Unit within FUNBIO
PROBIO	National Biodiversity Project
PRODEAGRO	Mato Grosso Natural Resources Management Project
PROECOTUR	Programa Nacional de Ecoturismo
PSR	Project Status Report
QAT	Quality Assurance Team
QCBS	Selection Based on Cost and Quality

RADAM	Radar in the Amazon
RDS	Sustainable Use Reserves
RESEX	Extractive Reserves Project
RFT	Rain Forest Trust Fund
SBF	Secretariat of Biodiversity and Forests
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
SCA	Amazon Region Coordination Secretariat
SCMA	Mamirauá Civil Society
SEAIN	International Affairs Secretariat
SECEX	Executive Secretariat
SECTAM	Federation of Agricultural Workers of the State of Pará
SEMA	Special Secretariat for the Environment
SIMBIO	Biodiversity Monitoring System
SISNAMA	Brazilian National Environment System
SIVAM	Monitoring System for the Brazilian Amazon
SNUC	National System of Conservation Units
SOE	Statement of Expenses
STAP	Scientific and Technical Advisory Panel
SUDBEVEA	Agency for the Development of Rubber
SUDEPE	Agency for the Development of Fisheries
TF	Trust Fund
TNC	The Nature Conservancy
TOR	Terms of Reference
UC	Conversion Units
UFPA	Federal University of the State of Pará
UNDP	United Nations Development Program
URP	Representation Unit Map
USAID	United States Agency for International Development
WB	World Bank
WWF	World Wildlife Fund
ZEE	Economic-ecological zoning

BRAZIL
AMAZON REGION PROTECTED AREAS PROJECT

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Annexes

Brazil

Amazon Region Protected Areas Project (ARPA)

Project Appraisal Document

Latin America and the Caribbean Regional Office
Brazil Country Managing Unit

Date: July 18, 2002	Task Team Leader/Task Manager: Claudia Sobrevila and Adriana Moreira
Country Manager/Director: Vinod Thomas	Sector Manager/Director: John Redwood
Project ID: BR-GE-058503 Sector: Environment	Program Objective Category: Environmentally Sustainable Development
GEF Supplement ID:	Focal Area: Biological Diversity
Lending Instrument: GEF Grant	Program of Targeted Intervention:
Program of Targeted Intervention:	[ ] YES [X] NO

Project Financing Data [ ] **Loan** [ ] **Credit** [ ] **Guarantee** [X] **Grant** [ ] **Other [Specify]**

For Loans/Credits/Others:

Total Project Cost: US$81.5 million.

Source:	Local	Foreign	Total
Government of Brazil	18.1		18.1
GEF	15.5	14.5	30.0
WWF	8.2	8.3	16.5
KfW	10.4	4.0	14.4
Other donors	1.5	1.0	2.5
Total	53.7	27.8	81.5

Borrower: N/A
Recipient: FUNBIO
Guarantor: N/A
Responsible Agency (ies): MMA, IBAMA, and FUNBIO

Estimated disbursements (Global Supplement FY/US$M):	2003	2004	2005	2006
Annual	22.0	20.0	20.5	18.0
Cumulative	22.0	42.00	63.5	81.5

Project implementation period: 2003–2006 Closing Date: December 31, 2006

A: Project Development and Global Objective

1. Project Development Objective

The overall objective of the Amazon Region Protected Areas Project (ARPA or "the Project") is to expand and consolidate the protected areas (PAs) system in the Amazon region of Brazil. The proposed Project would be the first phase (Phase 1) of a 10-year ARPA program. The Project's objective will be achieved by:

- Creating 18 million hectares in new protected areas (9 million hectares of "strict protection" PAs and 9 million hectares of "sustainable use"[1] PAs)
- Consolidating the management of 7 million hectares of existing "strict protection" PAs in addition to 9 million hectares of the newly created "strict protection" PAs
- Establishing and operating an endowment fund to meet the recurrent costs of protected areas
- Establishing and operating a biodiversity monitoring and evaluation system at the protected area and regional levels

2. Key Performance Indicators

The key performance indicators for Phase I are:

- 23 ecoregions in the Brazilian Amazon analyzed for identification of new PAs
- 18 million hectares of new PAs (9 million hectares of "strict protection" PAs and 9 million hectares of "sustainable use" PAs) created
- 7 million hectares of existing "strict protection" PAs and 3 million hectares of new "strict protection" PAs consolidated and managed
- An endowment fund for financial sustainability of existing "strict protection" PAs established and capitalized with a minimum of US$14.5 million
- Demonstration projects for financial sustainability of PAs implemented
- An environmental monitoring methodology for specific PAs defined and implemented
- Program Committee, Conflict Mediation Committee, and two project coordination units (one in the Ministry of Environment (MMA) and one in the Brazilian Biodiversity Fund (FUNBIO) created and operational

Preparation for Phase 2 would begin after the following Phase 1 benchmarks have been met:

- Creation of 9 million hectares of new "strict protection" PAs
- Consolidation of 4 million hectares of existing "strict protection" PAs
- The endowment fund established, capitalized, and meeting performance benchmarks

[1] Sustainable use protected areas have the goal of conserving biodiversity as well as supporting the communities living in them. These protected areas are regulated by management plans that include various use zones, some of which protect key environmental values of these areas, including, in particular, a "strict protection" zone. ARPA will support only surveillance and enforcement activities in the "sustainable use" protected areas to ensure ecological integrity and biodiversity conservation.

B: Strategic Context

1a. Sector-related Country Assistance Strategy (CAS) Goal Supported by the Project (see Annex 1)

Document number: CAS: R2002-0098[IFC/R2002/0091]
Date of latest CAS discussion: June 13, 2002

The most recent Country Assistance Strategy document (R2002-0098[IFC/R2002/0091]) stresses that environmental management needs to become an integral part of Brazil's overall development strategy. The CAS focuses in particular on policies that help reduce poverty and contribute to, or are compatible with, renewed economic growth. This emphasis is further elaborated in a section of the CAS document that addresses environmental and natural resource management, with special attention given to persisting deforestation in the Amazon region. The CAS identifies a strategy to deal with deforestation that is also incorporated into the design of this Project. Deforestation is the result of a complex interplay of forces involving farming, ranching, logging, mining, and other commercial pursuits; and is closely related to economic factors such as inflation, capital availability, and land prices. Solutions are equally complex and require combining the protection of priority ecosystems with balanced measures that reduce poverty and develop sustainable alternatives for increasing the income of the local population. The Brazilian government is experimenting with such alternatives through its Pilot Program to Conserve the Brazilian Rain Forest (PPG7) in which the World Bank (the Bank) plays a key coordination and secretariat role. Interest in the conservation of some of the country's environmental assets extends beyond Brazil as these assets provide internationally significant externalities (for example, biodiversity, carbon sequestration). The proposed Project is fully consistent with the CAS recommendations, particularly the need for protection of priority ecosystems. It builds on the achievements of the PPG7 and earlier Global Environment Facility (GEF) operations in Brazil.

1b. Global Operational Strategy/Program Objective Addressed by the Project

Occupying nearly one-half of the South American continent, Brazil has a wide range of climate zones ranging from humid tropics to semiarid and temperate areas. These comprise several ecologically differentiated biogeographical zones (biomes). Brazil contains the world's largest standing contiguous tropical rain forest (Amazonian forests), the world's largest inland wetland (Pantanal), expanses of semiarid thorn forests (Caatinga), vast tree and scrub woodlands (Cerrado), and more than 7,000 linear kilometers of coastal and marine ecosystems. The country's vast size and diversity of biomes contribute to a wide diversification of fauna and flora. Brazil is acknowledged as the most biodiversity-rich country in the world (Mittermeier 1998). With more than 50,000 species of vascular plants (one-fifth of the world total), Brazil is the most plant-rich country in the world. Areas such as the Atlantic forests and western Amazon have been designated as biodiversity "hot spots" because of their floral diversity and endemism. One in eleven of all world mammals (394 species) are found in Brazil, together with one in six of all world birds (1576), one in fifteen of all reptiles (468), and one in eight of all amphibians (502). Many of these species are also unique to Brazil, with 68 endemic mammals, 191 endemic birds, 172 endemic reptiles, and 294 endemic amphibians.

ARPA supports the GEF's Global Operational Strategy by contributing to the long-term protection of Brazil's globally important ecosystems. Specifically, the Project supports

Operational Programs 3 (Forest Ecosystems) and 2 (Freshwater Ecosystems), and targets three GEF priorities: (a) *in situ* conservation of globally unique biodiversity; (b) sustainable use of biodiversity; and (c) local participation in the benefits of conservation activities. The Project is fully consistent with Brazil's first report to the Conference of Parties (COP) IV. By supporting all three levels of biodiversity (ecosystems, species, and genes), the Project is also fully consistent with the principles of the Convention on Biological Diversity (CBD), and supports COP Decisions I/8, II/8, II/9, III/9, III/10, and III/12, as well as the SBSTTA Recommendation I/3.

The GEF is asked to finance the incremental cost of creating and consolidating new protected areas in the Amazon region. The requested GEF grant would also support the implementation of financial management and cost recovery mechanisms necessary to ensure the long-term management and financial sustainability of both existing and newly created Amazon protected areas.

2. Main Sector Issues and Government Strategy

The Brazilian Amazon occupies about five million square kilometers, a vast area equal in size to the combined territory of 25 European countries. It is inhabited by 13 million people, a majority of whom live in urban areas. The Amazon region encompasses the largest area of remaining tropical rain forest on the planet (30 percent), containing carbon stores of around 120 billion tons. Because the region is still relatively intact, it has a significant influence on both the regional and global climates. The Brazilian Amazon contains 23 ecoregions and is the repository of significant global biodiversity. According to the latest estimates, the region houses approximately 2.5 million species of insects, tens of thousands of species of vascular plants, at least 2,000 fish species, and 950 bird and 200 mammal species, offering some of the greatest genetic diversity on the earth. According to the National Indian Foundation (FUNAI), the region's indigenous population amounts to approximately 200,000 persons. The 206-known ethnic groups surviving in the area, with close to 170 indigenous languages still spoken, reflect the region's rich cultural diversity. There is no doubt that preserving a significant portion of the Amazon rain forest is crucial for Brazil and for the world at large.

The extensive biodiversity of the Brazilian Amazon is threatened by deforestation driven by accelerated economic development, agricultural expansion, ranching, logging, mining, and settlement policies. Vested interests, poverty, and an absence of environmentally sustainable alternative economic activities exacerbate the situation. Consequences of these factors are increased clearing and burning of tropical forests, degradation of watersheds, and over-exploitation of wildlife and fisheries. In the Amazon, landless rural people continue to be settled in inappropriate areas; timber extraction has increased as a result of growing participation by foreign logging companies; and large tracts of forest are being converted to cattle pastures and agricultural monocultures such as soybeans. Long-term solutions require measures to reduce poverty, provide economically feasible and environmentally sustainable alternatives, and strengthen the protection of priority ecosystems.

Brazil's federal and state governments have made many reforms, adopted national policies, and signed international agreements to reduce deforestation and to increase environmentally friendly policies for sustainable development that are key to the Amazon challenges: (a) the adoption of

a "green protocol," requiring banks and lending agencies to incorporate environmental criteria into funded projects, is now institutionalized; (b) in 1992, the Brazilian federal government ratified the Convention on Biological Diversity (CBD); (c) there has been a trend for the devolution of environmental management to states and municipalities; (d) a "green sales tax" (*ICMs verde*) for biodiversity protection has been introduced in some states; (e) in 1998, the amount of private land holdings in the Amazon required to be kept as "legal forest reserves" increased from 50 to 80 percent; (f) improved land tax collection and legislative reform allows for forested lands to be considered "in productive use"; (g) in 1998, the Environmental Crimes Law was passed allowing for the prosecution of environmental violators; (h) in 1999, the government declared a temporary ban on mahogany extraction in Amazon forests.

Conservation and sustainable development of the Amazon region. To implement the environmental policies itemized above, the Brazilian government has developed over the past 10 years many programs and projects. The Pilot Program to Conserve the Brazilian Rain Forest (PPG7) is the most comprehensive effort by the federal and state governments to support the preservation and sustainable use of Amazon ecosystems. The PPG7 started its operations in 1992, and supports pilot projects aimed at optimizing the environmental benefits offered by rain forest ecosystems in a way that is consistent with Brazil's development goals. At the request of the G-7 countries and Brazil, the World Bank coordinates the PPG7, supervises the program's ongoing projects, and administers the PPG7's Rain Forest Trust Fund (RFT). With currently about US$300 million in grant funds provided by the G-7 countries, the European Union, the Netherlands, and the Brazilian government, the PPG7 is the largest multilateral grant program for environmental conservation in a single country. More than US$160 million have already been invested in the program's projects. Its thirteen core pilot projects address areas critical to the conservation of Brazilian tropical forests.

Pilot projects implemented to date include extractive reserves; indigenous reserves; innovative approaches for managing forests and floodplains; environmentally sound development initiatives to be carried out by local communities; strategy and strengthening of key research centers; and improved oversight and enforcement of environmental policies at the state level. One of the largest and most complex of the PPG7 projects is the Natural Resources Policy Project, which aims at building up the institutional capacity of the Amazonian states and municipalities to effectively manage their natural resources. A significant result of the project is that most of the states have completed their economic-ecological zoning (ZEE) and are using this planning tool as a form of spatial planning of resources, law enforcement, surveillance, licensing, and environmental monitoring.

The PPG7 has helped to promote constructive changes within the wider institutional and policy context in the Brazilian Amazon. The formulation of the National Integrated Policy for the Legal Amazon (1995) benefited from much of the early work undertaken by the PPG7. The PPG7 has also contributed to the strengthened role of nongovernmental organizations (NGOs) through the GTA (Amazon Working Group) network, and has been a catalyst for new and productive forms of collaboration linking federal and subnational governments with civil society. In parallel to the PPG7, Natural Resources Management Bank loans to the states of Rondônia and Mato Grosso (*Planafloro* and *Prodeagro*) have established and demarcated indigenous lands, parks, and reserves in the Brazilian Amazon region in an effort to conserve the Amazon rain forests.

The PPG7 approach to the Amazon has generally stressed the importance of sustainable development and has tried to balance legitimate economic aspirations with ecological imperatives. Despite the successes mentioned above, relatively little attention has been given to strict protection of key ecosystems, which is the foundation for sustainable development and for the maintenance of ecological integrity. Brazil has only about 12 million hectares of tropical forest in the Amazon region (3.2 percent of its land surface) under strict protection. This is low relative to other Amazon countries—Venezuela has 18 percent and Colombia and Ecuador have 15 percent of their Amazon territory under strict protection. Although the PPG7 has supported the establishment of extractive reserves, the local constituencies such as rubber tappers and non-timber forest product extractors have expressed their desire to increase the areas of Extractive Reserves and Sustainable Development in the Amazon which, given the actual demand for these types of reserves, has not been sufficiently addressed by PPG7. The government of Brazil recognizes the importance of creating additional protected areas in the Amazon as a complementary program to the PPG7.

Biodiversity conservation. In an effort to implement the United Nations' Convention on Biological Diversity, the government of Brazil, with support of the private sector, has executed since 1996 two GEF pilot projects: the National Biodiversity Project (PROBIO) and the Brazilian Biodiversity Fund (FUNBIO). These pilot projects have contributed significantly to supporting Amazon initiatives. PROBIO has supported five priority-setting assessments, a national biodiversity information network, and 22 model demonstration projects throughout Brazil. Of the five priority-setting assessments, one was dedicated to setting conservation priorities in the Amazon region. The results of the Amazon region's assessment has been used in the early planning stages of ARPA. FUNBIO is one of the major environmental funds supported by the World Bank and the GEF. This sinking fund was established in 1996 with a US$20 million grant from GEF and US$10 million from other domestic and international partners. FUNBIO involves an innovative arrangement whereby release of GEF capital for the sinking fund is tied to mobilization of matching funds primarily from the private sector. Both initiatives (PROBIO and FUNBIO) have a relevant role to play in the proposed Project. They are the building blocks that allow this project to move forward. PROBIO provides the scientific, social, and participatory context to setting conservation priorities in the Amazon; FUNBIO provides the financial mechanism to meet the long-term recurrent costs of protected areas. Both projects are small scale and pilot new initiatives but have not addressed the need to create and effectively manage protected areas on a large scale in the Brazilian Amazon—that is the scope of the proposed Project.

Protected areas management. The management of protected areas in the Brazilian Amazon region is the primary responsibility of two federal institutions under the Ministry of Environment (MMA) and the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA). State and municipal governments also participate in the management and administration of protected areas. In recent years, the federal government has promoted involvement in conservation issues by the Brazilian society in general. Through meetings and workshops, local communities and their representatives now take a more active part in all stages of the planning and implementation of protected areas. Implementation is frequently carried out through partnerships between governmental institutions, NGOs, and private sector institutions and organizations. The Brazilian government's investment in the Amazon protected areas has actually been very limited. Less than US$3.5 million per year are invested in only 30 areas, averaging US$22,000 per area per year. The World Bank provided a loan to the National

Environmental Program (NEP) that channeled financial resources to areas under strict protection in the Amazon. Consequently, over the past five years US$6.5 million have been invested, primarily in four areas: Serra do Divisor National Park in Acre, and Jau National Park, Anavilhanas Ecological Station, and Mamiraua State Park in Amazon State. While improvements resulted, protected areas management continues to be problematic. Major problems include: (a) management is overly centralized; (b) protected areas are scattered and often too small (less than 100,000 hectares) to ensure genetically viable populations of the larger, wide-ranging species such as top predators; (c) IBAMA resources are insufficient to manage effectively a large number of small units; (d) protected areas are inadequately staffed and lack skilled staff—on average, there is one IBAMA employee for every 27,560 hectares of protected area, and only 20 percent of the 575 employees administering protected areas have a higher education; (e) budgetary processes are centralized and inflexible. It is apparent from the lessons learned from this past experience that the management of protected areas in general throughout Brazil, and in particular in the Amazon region, needs to be more effective to ensure that biodiversity is protected.

Legal context for protected areas. One of Brazil's most significant accomplishments to protect the Amazon ecosystems was the passing of the National System of Conservation Units (SNUC) law. Following a lengthy process of public consultations and consideration in thematic commissions, law no. 9.985 was passed on July 18, 2000. The SNUC law regulates article 225, and sections I, II, III, and VII of the Federal Constitution, enacting the National System of Protected Areas. The overall objective of this system is to maintain biological diversity and genetic resources in national territory and jurisdictional waters. It aims to achieve this by providing a uniform legal basis, concept, and methodology for the numerous governmental agencies at the municipal, state, and federal levels responsible for consolidating protected areas. SNUC eliminates some legislative governmental contradictions and overlaps previously experienced in managing Brazil's protected areas. The system defines the responsibilities and categories of protected areas, establishes rules for managing protected areas, and provides for property ownership. To date, the system has approved five categories of "strict protection" areas (Ecological Stations, Biological Reserves, National Parks, Natural Monuments, and Wildlife Reserves) and four categories of "sustainable resource use" areas (National Forests, Extractive Reserves, Sustainable Development Reserves, and the Private Natural Heritage Reserves). These areas will be zoned for various uses, including a "strict protection" use.

SNUC substantially strengthens the legal framework for protected areas in the Amazon region. Passing the law has been an important milestone for Brazil's protected areas system. The next step is to regulate the law and test it on the ground. The discussion on and preparation of the SNUC regulation advanced significantly between January and April 2002. The National Council for the Environment (CONAMA) prepared and approved a proposal for a decree that will regulate the SNUC legislation. The proposal is currently being evaluated by MMA. It is crucial to develop programs and projects that test the SNUC law during the next five years, particularly the proposed participatory methodology for creating and consolidating protected areas. Protected areas management in Brazil need to develop partnership and co-management arrangements if Brazil's protected areas are to be more effectively managed.

The government of Brazil acknowledges that each of the programs and projects mentioned above have significantly contributed to protecting Amazonian ecosystems. It also recognizes issues needing improvement over the next five years, including the need to:

- regulate and test the SNUC law
- increase the percentage of protected areas in the Amazon region and manage these areas effectively
- adopt a methodology to create a mosaic of protected areas in the Amazon to ensure their ecological and social sustainability
- develop long-term financial mechanisms that support protected areas in the Amazon
- strengthen the participatory and decentralized mechanisms needed to manage effectively biodiversity in the Amazon.

In order to address these critical issues, MMA recognizes the need for increased participation at the state level in the development of an overall strategy for the Amazon region. Over the past two years, MMA has executed the program Positive Agenda for the Amazon (*Agenda Positiva para a Amazonia*). This is a transparent and constant dialogue with economic and social agents of the Amazon region including local government, NGOs, the private sector, universities, and local and indigenous communities. These actors have been involved in developing common agendas for sustainable development, and the discussions have reflected a strong consensus as well as disagreements. MMA has subsequently developed a strategy for the Amazon comprised of three primary courses of action: (a) strengthening the control of natural resources use by licensing, inspection, and monitoring; (b) stimulating the productive sector to adopt sustainable economic practices; and (c) expanding and consolidating protected areas for biodiversity conservation.

Control of natural resources use. To support the first course of action, MMA and IBAMA will continue to modernize the control mechanisms for environmental licensing and the approval of management plans in rural properties. With the support of state and local governments, MMA and IBAMA are planning to increase the surveillance and monitoring of vegetation burnings and deforestation. Since 2000, the World Bank-supported project, Program for Prevention and Control of Burnings and Forest Fires (PROARCO), implemented in the Deforestation Belt, has shown concrete results. The number of burning incidents decreased by over 80 percent in the year 2000. The most conspicuous control actions are being carried out in Mato Grosso, Pará, and Rondônia, the states with the highest deforestation rate (80 percent of the total), where specific initiatives were defined to address the different realities and deforestation dynamics. Under the new licensing system, geo-referenced monitoring involving small and large properties will be piloted in Mato Grosso and Acre. Additional states will eventually be added to these pilot programs.

Sustainable economic practices. The Brazilian government has recently created the National Forest Program (PNF) for the purpose of coordinating management of the Brazilian forest sector, updating sector guidelines, incorporating new management concepts, identifying funding sources, and introducing new sustainability models. Through the program, the government hopes to lend greater consistency and substance to the new Forest Policy. It establishes a coherent strategy to promote sustainable forest development, harmonizing economic use with the protection of ecosystems. It will also make forest policy compatible with other public policies and promote the expansion of markets both at home and abroad as well as the institutional development of the sector. After an extensive, countrywide consultation process, 10 themes were defined as guidelines for planning and action. Three program lines are already included in the federal government's development plan *Avança Brasil–Plano Plurianual/ PPA 2000—2003*, and approximately US$100 million have been allocated for investment purposes.

The PNF represents an unprecedented participatory effort for organizing and defining priorities for the Brazilian forest sector. Brazil's environmental NGO community has shown strong support for this program and its emphasis on ecologically appropriate, socially beneficial, and economically viable forest-based development. The government plans to request financing from the World Bank to support implementation of the National Forest Program. The PNF is complementary to ARPA as it seeks to develop a sustainable development strategy once the areas with highest biodiversity have been permanently set aside for conservation.

Creation of protected areas. The creation of new protected areas is a viable strategy for the Brazilian Amazon. It is well known that the cost of creating protected areas increases as rural areas and the agricultural frontier expand. However, the Brazilian Amazon still has vast expanses of remote and scarcely populated areas rich in biodiversity that are ideal for transforming into protected areas. A significant portion of the Brazilian Amazon (12 percent) is still categorized as "unclaimed government lands." This open-land designation creates favorable conditions for squatters, other land users, and speculators to invade these unclaimed lands, a situation exacerbated by the government's limited enforcement capacity in the remote frontier areas. Research by Conservation International (CI) indicates that areas in the Brazilian Amazon that have been legally designated as protected areas—even when not implemented—are much better protected from encroachment than "non-declared" areas, even under minimal enforcement. This fact underscores the importance of legally establishing protected areas and of promoting public awareness as necessary first steps in protecting land from encroachment by mining, logging, colonizers, and road construction. More important, legally establishing protected areas and promoting public awareness will help maintain the long-term ecological integrity of the region. Therefore, creating protected areas from "unclaimed government lands" in remote areas—even if enforcement capacity is limited—is a cheap and strategically important choice for the Brazilian Amazon, especially considering that only 3.2 percent of the land surface is currently under strict protection.

Government efforts at the federal and subnational levels, together with the increased public awareness of environmental concerns resulting from a decade of PPG7 efforts, have created a strong constituency for creating new protected areas in the Amazon. There is growing recognition that sustainable development and protected areas are both necessary and reinforce one another. One result of this growing recognition is the proposed project. Created with the catalytic support of the World Wildlife Fund (WWF)/World Bank Alliance, the GEF, federal and state authorities, NGOs, and the PPG7, the Project's goal is to add 25 million hectares in new protected areas over the next 10 years. Within a decade, the Project, aided by existing efforts, will result in a total of 70 million hectares—nearly 30 percent—of Amazon forested ecosystems under some form of effective protection and sustainable use.

The concept of ARPA was adopted in 1998 by Brazil's President Cardoso in response to the formation of the WWF/World Bank Alliance. Preparation of ARPA has taken a substantial time to complete in order to ensure the participation of the key stakeholders and the appropriate financial mechanisms for such a complex project.

ARPA consists of three phases to be executed within 10 years:

Phase 1. The duration of Phase 1 (the proposed project) would be four years. Objectives of this phase are to:

- Create 18 million hectares of new protected areas (9 million hectares of "strict protection" PAs and 9 million hectares of "sustainable use" PAs)
- Consolidate the management of 7 million hectares of existing "strict protection" PAs and of 9 million hectares of newly created "strict protection" PAs
- Establish an endowment fund to support the recurrent costs of PAs
- Establish a biodiversity monitoring and evaluation system at the PA and regional levels

Phase 1 performance benchmarks must be satisfied before proceeding to Phase 2. Phases 2 and 3 would build on lessons learned during Phase 1.

Phase 2. Phase 2 focuses on establishing an additional 19.5 milllion hectares of new "strict protection" PAs while supporting the managerial consolidation of existing and newly created PAs. By the end of Phase 2, the identification of new protected areas will be completed. Institutional capacity-building efforts will continue the strengthening of protected area management, to include installation and implementation of financial and environmental information systems. In addition, critical legal reforms (to include user fees and market-based cost recovery mechanisms) will be passed during this phase, and income-generating activities with low environmental-impact would be implemented. Phase 2 would consequently adapt and implement these initiatives, creating the basis for financial sustainability. To this end, initiatives would be undertaken to develop partnership programs with the private sector.

Phase 3. Phase 3 focuses primarily on the long-term sustainability of the areas created and consolidated in the previous two phases. Institutional strengthening activities would continue through this phase, and implementation of revenue-generating activities and private sector participation would be intensified.

Proceeding to Phases 2 and 3 would be based on recommendations from independent evaluations conducted toward the end of Phases 1 and 2, respectively. The performance benchmarks to be used during these evaluations are presented in Annex 1-A. The role and scope of the GEF's support for Phases 2 and 3 would be determined at that time.

3. Sector Issues to be Addressed by the Project and Strategic Choices

Legal and policy framework. The proposed Project seeks to test some key and potentially very important elements of the SNUC law:

- Participation of local populations in the establishment, implementation, and management of protected areas
- Creation of instruments to elicit support and cooperation from the public and private sectors for studies, scientific research, environmental education, recreation, ecotourism, management, monitoring, and other activities relevant to the use and maintenance of protected areas
- Incentives for local populations and private organizations to establish and manage protected areas within the national system
- Creation of conditions for the economic sustainability of protected areas, where possible
- Establishment and management of protected areas within the legal framework governing land and water management, taking into account local socioeconomic conditions and requirements

- Provision of alternative forms of livelihood or adequate compensation for traditional populations which can no longer harvest existing natural resources within protected areas
- Provision of sufficient financial resources for proper management of protected areas
- Establishment of financial and administrative autonomy for the protected areas, whenever possible and in accordance with federal guidelines
- Establishment of Consultative Management Councils for each protected area
- Regularization of financial contributions by private enterprises that obtain direct benefits from protected areas
- Regularization of land tenure within and surrounding protected areas

Financial sustainability. IBAMA currently has only one staff member for every 27,560 hectares under its responsibility. It manages more than 174 protected areas and a total area of 35 million hectares. The Brazilian government's fiscal funding for protected areas management has been insufficient and variable. With increased participation by the private sector and civil society, and funding from international donors, a new *modus operandi* for protected areas' financial sustainability is needed. It is critical that the Project establish the basis for long-term financial sustainability of protected areas in the Amazon region. The Project addresses this issue by identifying, developing, and implementing appropriate financial vehicles to generate the needed resources. Project funds will finance the establishment of a Trust Fund for Protected Areas. The trust fund would be complementary to the government's obligation to finance the core staffing in each of the protected areas supported under the Project.

Protected areas programs coordination. The Project addresses the need to coordinate the currently diffuse federal and state government efforts related to protected areas creation and management. During project preparation, MMA and IBAMA have worked closely together to integrate their protected areas programs and to coordinate more closely their efforts. Through a series of meetings with state environmental officials, MMA has developed a strategy to consolidate state protected areas under the Agenda Positiva initiative. The Project has had the active participation of civil society, which will continue during project implementation. The Project will establish a permanent Program Committee where coordination of ongoing MMA and IBAMA programs supporting PAs will be spelled out. The Program Committee will also include state and civil society representatives.

Participatory approach. The proposed Project takes as a central premise that the success of demarcating and protecting PAs depends upon direct involvement and participation of the local people. Hence, the active participation of local communities will be a key element in protected area selection and design. The Project will also promote the incorporation of established Brazilian organizations, NGOs, scientific and academic institutions, and civil society organizations. Assistance will be sought in the areas of protected areas management, natural resources management, rural development, community organization, technology transfer, monitoring and evaluation, and environmental education. The mechanism for involving civil society will be partnership and concession agreements in order to increase the number of qualified stakeholders and to facilitate an effective participatory management. The Project would provide funding for assessing the viability of different organizations and mechanisms, strengthening the management capability of candidate organizations, and developing appropriate partnership "contracts" (for example, concessions, leasing) for the management of protected areas. This participatory approach would also contribute to the strengthening of the ongoing process of decentralization promoted by MMA and IBAMA, and would reduce the

government's financial burden by tasking protected area management partners with mobilizing private sector funding (for example, matching funds for protected area management).

Strategic choices. To address the issues referred to above, the following strategic choices were made:

a. In its first concept, the Project would only include "strict protection" PAs which are less numerous in the Amazon region. Through a consultation process with the states and the civil society, this initial design at the Project Concept Document (PCD) stage was modified. The government's previous experience to have a more socially sustainable protected areas system in the Amazon points out that the system needs to be designed in a comprehensive way, allowing for a *mosaic of protected areas* adjacent to each other. The category of these protected areas and the uses allowed in them are designed with a full participation of the local players. The result is that these areas support each other instead of working against each other. Because it is the major local actors that determine this mosaic through a consensual process and with technical support from the government and other organizations, the resulting proposals have broader ownership. Through a consensual process among the social stakeholders, the different government players, and the donors, ARPA now includes the goal of creating 9 million hectares of Extractive and Sustainable Development Reserves in addition to the targets for strict conservation areas (nine million hectares for Phase 1).

b. Regarding financial mechanisms and sustainability, several options were considered. After the PCD stage, the need to create a trust fund for the protected areas in the Amazon became clear to the government and other Project stakeholders. First, the FMA (National Environmental Fund *Fundo Nacional do Meio Ambiente*) was considered as a possible host for ARPA. But lessons learned on protected areas funds in Latin America and the Caribbean suggest that a government-operated fund does not have enough flexibility to attract and manage private donations, whereas a private fund does. Since most of the ARPA donors are from the private sector, a private organization was selected through a lengthy process of consultation involving the Brazilian government and other stakeholders. FUNBIO, a private NGO that the Bank is supporting through other GEF grants, was selected as the partner for ARPA and host for the Protected Areas Trust Fund. In March 2002, the International Affairs Secretariat (SEAIN) submitted a letter to the Bank indicating that FUNBIO would be the recipient of the GEF US$30 million grant.

c. Regarding project participation and coordination, several strategic choices were made to ensure stakeholder participation. First, the Program Committee that will operate during project implementation has six government members (SECEX/MMA, SCA/MMA, SBF/MMA, IBAMA, State Forum of Secretaries of Environment of the Amazon Region, and municipalities) and six from civil society (two social NGOs, two environmental NGOs, one FUNBIO member, and one donor). Second, the Project has tested a participatory methodology financed by the WWF/WB Alliance in two pilot areas, one in Rondônia and one in Roraima. These workshops were carried out in October and November of 2000. One case study involved the creation of an indirect use area (park) and of two extractive reserves in Costa Marques, Rondônia. The second case study involved the preparatory workshop for the consolidation of a mosaic of protected areas of indirect use (parks and ecological stations) in Caracaraí, Roraima. The methodology to be used during ARPA's implementation was tested at the workshops and includes a broad-base consultation process at the local level. A summary is presented in Annex 15. Finally, the Project

will establish a Conflict Mediation Committee (CMC) that will address and propose solutions to social conflicts in protected areas. This decision has been ratified through a letter from the Minister of Environment to the Bank in April 2002. Details of the committee's mandate are presented in section C.4, and the operating procedures will be spelled out in the Project Operational Manual.

C: Project Description Summary

1. Project Components

ARPA's objectives will be met through five project components. For a detailed project description, refer to Annex 2. For financing of specific components by the GEF, WWF, Kreditanstalt für Wiederaufbau (KfW), and the government of Brazil, refer to the Tables in Annex 3.

Component 1: Creation of new protected areas

This component would finance the creation of 18 million hectares of new protected areas (9 million hectares of "strict protection" PAs and 9 million hectares of "sustainable use" PAs). The areas will be created following strict selection criteria and the process described in Annex 13, following a tested participatory methodology described in detail in Annex 15. The major activities under this component are:

- The collection of biological, social, and economic data on the Amazon region for use in selecting the protected areas to be created. Data collection would employ existing information, databases, and updated satellite images.
- The preparation of studies, consultations, and proposals for creating the new protected areas. These studies will include environmental and social studies carried out locally, as well as land tenure assessments. Any social conflict identified in the assessments would be reported to the Conflict Mediation Committee. The local consultations would discuss the proposals and once discussed, the decree would be submitted for approval and publication.
- The on-the-ground establishment of new protected areas once they have been declared. This activity will include demarcation procedures, implementation of land tenure regularization plans and land acquisition where needed, preparation of basic protection plans, construction of the minimum infrastructure and purchase of minimal equipment, and personnel training. It is expected that 10 new protected areas would be established on the ground. The full consolidation of these areas into effectively managed protected areas will be part of Component 2.

This component will be implemented by MMA, IBAMA, states and municipalities (for state or municipal PAs) and FUNBIO.

Component 2: Consolidation of protected areas

This component will support activities in a minimum of 10 new "strict protection" PAs (approximately 9 million hectares) and 12 existing "strict protection" PAs (7 million hectares). The existing protected areas were selected using criteria that included lack of conflicts with indigenous lands; land tenure situations resolved or favorable for resolution; feasibility of

implementation; presence of NGOs; and high conservation value. See Annex 14 for a detailed description of the 12 existing "strict protection" PAs. The major activities to be supported include:

- Demarcation and land regularizations, including land tenure assessments, baseline land registry surveys, ground surveys, private property infrastructure surveys, and mapping. A detailed land acquisition plan will be prepared and government funds will be used to finance land purchase where needed.
- Basic protection activities, including infrastructure, equipment, and core staff, to secure services of protection and community outreach before the preparation and implementation of management plans.
- Preparation and implementation of management plans for new and existing protected areas consolidated under the Project.
- Community participation for the establishment and consolidation of protected areas. The activities will include the establishment and operation of protected area councils, partnerships with NGOs for protected area management, and community-driven subprojects. The eligibility criteria for the subprojects will be spelled out in the Project Operational Manual. These subprojects would support communities—including indigenous communities—living around the protected areas.
- Training programs to strengthen the administrative, financial, and conservation management of protected areas.

IBAMA, the states and municipalities (for state and municipal PAs), and FUNBIO will be responsible for this component.

Component 3: Long-term sustainability of protected areas

This component will support the establishment of an endowment fund (FAP) for the protected areas system in the Amazon region. The main activities under this component are: (a) creation of an administrative, financial, and legal structure for FAP; (b) support the recurrent costs of existing protected areas; and (c) develop a fundraising strategy for capitalizing FAP. See Annex 12 for a detailed description of FAP operations and finances. FAP resources can support the recurrent costs of "strict protection" PAs that are consolidated under the Project and that have clearly identified conservation needs beyond the basic personnel financed by the Brazilian government. "Sustainable use" PAs will be eligible for support from FAP for surveillance and enforcement activities to protect key environmental values of these areas, in particular, the strict protection zones. The eligibility criteria for the protected areas that will enter the program have been established and will be documented in the FAP Operational Manual. These criteria will be agreed to before the Project grant is effective. This component will also support the preparation of studies and subprojects aimed at defining and testing adequate revenue-generating mechanisms for protected area sustainability. A total of 10 subprojects would be supported during implementation. These subprojects would benefit communities living around the ARPA protected areas, including indigenous communities. The eligibility criteria for the subprojects will be spelled out in the FAP Operational Manual. FUNBIO will be responsible for the implementation of this component and the administration of FAP.

Component 4: Protected area monitoring

This component will support the establishment of a biodiversity monitoring system and analysis of new and existing protected areas. Project monitoring would include information on biodiversity status (key indicator groups), pressure on ecosystems (levels of threat), water resources and climate, island effect (levels of connectivity), and management effectiveness. The monitoring system will be tested in five existing protected areas and will be applied in the newly created protected areas as they are implemented. This component will support training activities for protected area staff in the field and at central agencies (IBAMA and state environmental agencies). Training will cover data collection methods, interpretation and implementation of the biodiversity monitoring system, dissemination activities for preparing local communities, and methods for accessing and providing information relevant to the monitoring of protected areas. IBAMA and FUNBIO will be responsible for this component.

Component 5: Project coordination and management

This component would support the overall coordination of the various components in MMA, IBAMA, and FUNBIO, and would ensure implementation of the following management activities: (a) preparation of annual operating plans; (b) preparation of supervisory reports or any request for information by donors or the Bank; (c) monitoring and evaluation of project activities; (d) procurement, financial management, and accountability; (e) assurance that implementation agreements and financial execution are effectively carried out; (f) communication and dissemination activities of ARPA. This component will also finance the operating costs of the various project committees. See section C.4 on institutional and implementation arrangements, for details on this component.

A summary of GEF financing of the Project's components is presented below.

Table 1. ***Project components and costs***

Component	*Indicative direct costs (US$M)*	*% of Total*	*GEF-financing (US$M)*	*Level of GEF contribution*
1. Creation of new PAs	25.0	31%	2.2	9%
2. Consolidation of existing PAs	23.1	28%	4.6	20%
3. Long-term sustainability of PAs	24.5	30%	17.3	71%
4. Monitoring of PAs	2.4	3%	2.4	100%
5. Project coordination and management.	6.5	8%	3.5	53%
Total	**81.5**	**100.0%**	**30.0**	**37.0%**

2. Key Policy and Institutional Reforms Supported by the Project

The Project will pilot the implementation of new laws and regulations supporting the creation and management of Brazilian protected areas, particularly the SNUC law. The Project would increase intersectoral dialogue and joint actions by engaging IBAMA, FUNAI, the Land

Reform Agency (INCRA), and state and municipal governments in the creation and management of protected areas. It would also develop critical core experience in creating and managing protected areas and buffer zones, synthesizing and disseminating the experiences of primary stakeholders such as the government, environmental, and biodiversity conservation agencies, and civil society. Income generation from protected area services and charges is an additional expected outcome of the institutional reforms. Finally, the Project will continue to strengthen financial management in the environmental sector by incorporating the lessons learned from using organizations such as Banco do Brasil as a financial intermediary under the PPG7 –Demonstrations Project (PDA) and FUNBIO.

3. Benefits and Target Population

The Project aims to achieve measurable improvements in the quality and management of biodiversity and natural resources in the Amazon region at the federal, state, municipal, and local levels.

Local populations. Some of the beneficiaries of these improvements will be the populations adversely affected by the loss of biodiversity and other forms of natural resource and environmental degradation. The establishment of "strict protection" PAs could also adversely affect such families in the short term by eliminating their use of the natural resources. To manage potential short-term economic dislocations and losses of livelihood for poor communities during the transition period, the Project would support the interventions enumerated below:

- Targeted investments in alternative revenue-generating activities in protected areas and buffer zones where additional private and public funding will be sought for low environmental-impact development activities to benefit local populations
- Building a strong constituency for protected areas through partnerships, environmental education, and co-management agreements
- Strengthening the capacity of states, municipalities, and other local representative entities to conduct participatory protected area management so that decision-makers can make informed choices that promote poverty alleviation efforts along with conservation objectives
- Strengthening the role of IBAMA and the MMA as coordinators of responsive protected area policy, and continuing the effort started under PPG7 to include local populations in all aspects of protected area creation and management

The country and the government. Regional and national benefits will include:

- Maintenance of biodiversity and implementation of replicable sustainable development models in environmentally valuable areas
- Development of income generating activities and other economic incentives to maintain protected areas in the longer term
- Poverty alleviation in and around protected areas
- Strengthened protected areas managerial capacity and legal framework
- Replication of successful protected areas models in other areas resulting in additional benefits

Global environmental benefits. The global environmental benefits consist of:

- Preservation of arguably the most significant biodiversity reserves in the world—the Brazilian Amazon biome—through creation of extensive protected areas and enhanced management of new and existing protected areas
- Development of innovative models and experiences in preservation of biodiversity and sustainable development, with possibly huge replicability potential in Brazil and globally
- Engagement of the most important biodiversity country in the world, Brazil, in a relatively rare, meaningful, and successful conservation effort that should lead to new efforts
- Maintenance of globally important watershed areas and carbon sequestration capacity

4. Institutional and Implementation Arrangements

a. Institutions involved in the Project. ARPA will be executed by the Ministry of Environment (MMA), the Brazilian Biodiversity Fund (FUNBIO), the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA), and state and municipal agencies (for specific protected areas).

A *grant agreement* between the World Bank and FUNBIO will be signed to carry out the implementation of ARPA. FUNBIO was selected by the Brazilian government to manage the grant resources; responsibilities shall include: (a) procuring goods and contracting services needed for project execution with GEF grant resources; (b) carrying out disbursements and the financial execution and accounting of the Project; (c) creating and establishing the Protected Areas Trust Fund (FAP) (see Annex 12); (d) preparing studies on financial and legal instruments for long-term sustainability of protected areas; and (e) testing proposed financial mechanisms in selected protected areas.

ARPA will be established by presidential decree. In this decree, the project partners' responsibilities will be spelled out. A draft of the presidential decree was discussed during negotiations and the decree would be passed prior to effectiveness.

A *implementation agreement* between MMA and FUNBIO, and one between IBAMA and FUNBIO, will be signed as a condition of effectiveness. The implementation agreements shall define each organization's responsibilities and obligations under the Project.

For the state and municipal participation, a *model cooperation agreement* between their environmental secretariats and agencies, the Brazilian federal government, through the MMA, and FUNBIO would be included in the Project Operational Manual and would be signed before any state or municipality participates in the Project.

In addition, *cooperation agreements* between MMA and FUNAI, and between MMA and INCRA, would be signed before effectiveness. In the MMA/FUNAI agreement, the responsibilities of FUNAI vis-a-vis the demarcation of indigenous territories and activities related to ARPA by indigenous peoples would be spelled out, including a commitment to prioritize the demarcation of indigenous areas adjacent to protected areas to be created under ARPA. Although resettlement activities are unlikely to happen under ARPA, the INCRA agreement would spell out the responsibility and commitment of INCRA to carry out the resettlement process if such process is required during implementation.

Cofinancing for the Project has been agreed to during appraisal and is presented in Table 2 in Annex 3. The main cofinancing partners for ARPA are:

- *World Wildlife Fund (WWF-Brazil)*, project donor, supporting overall project activities and having a strong commitment to fund-raising activities for the Protected Areas Trust Fund (FAP). WWF has been initially appointed as the representative of the Project's private donors. This appointment would be subject to annual renewal by the formal group of private donors. A *grant agreement* between WWF and FUNBIO will provide support for the Project's trust fund (FAP) and other activities under the WWF/FUNBIO agreement. The amount of funding confirmed by WWF during the appraisal is US$11.5 million, to be disbursed over four years. The WWF funds will be used to finance the activities specified in Component 1.1, 1.2 , 1.3 (for sustainable use PAs) and Component 5. (See Annex 3 for more details on the activities to be financed by WWF.)
- *Kreditanstalt für Wiederaufbau (KfW)* has increased its allocation to the PPG7 program in order to support ARPA. Two agreements—a *grant agreement* between the federal government of Brazil, through the MMA, and KfW, and a separate *project agreement* (*Acordo em Separado*) between the MMA, IBAMA, KfW, and FUNBIO—define the rules for the transfer of funds from the MMA to FUNBIO, the utilization of funds, the disbursement procedures, and the control of utilization of the funds. The amount of funding confirmed by KfW during the appraisal is US$14.4 million dollars. The funds from KfW will be used to finance the activities in Component 1.3 (for "strict protection" PAs) and in Component 2.1, 2.2, 2.3 and 2.5.

ARPA will also be supported, both technically and financially, by other important partners:

- *Deutsche Gesellschaft für Technische Zusammenarbeit GmbH (GTZ)* will provide technical assistance to strengthen the institutional capacity of the Project, to improve the management of protected areas, monitoring and evaluation, and the disbursement and application of KfW-supplied funds.
- *Brazil Connects* has committed to become a project donor to the Protected Areas Trust Fund to support activities in "sustainable use" protected areas.
- *Other Partners*, public or private corporations, may, in the future, contribute to the achievement of the Project's objectives. Among such partners there is the possibility that the Civil Society Organizations of Public Interest (OSCIP) may manage protected areas, under the terms of article 30 of law no. 9.985/2000.

As a condition of disbursement of grant proceeds to the Protected Areas Trust Fund (FAP), an *agreement between FUNBIO and an Asset Manager* must be signed. This agreement would set the responsibilities of the selected asset manager in managing FAP.

The table below summarizes the distribution of execution and administration responsibilities among the different institutions for each component of the Project.

Table 2. ***Execution and administration responsibilities***

Components	*Executors*	*Administrator*	*Potential Partners*
1. Creation of new protected areas	MMA, IBAMA, states and municipalities	FUNBIO	NGOs, INCRA, FUNAI, research institutions, the SIVAM project, grass-root organizations
2. Consolidation of existing protected areas	IBAMA, states and municipalities	FUNBIO	NGOs, INCRA, FUNAI, academic institutions, grass-root organizations; the private sector
3. Long-term sustainability of protected areas	FUNBIO	FUNBIO	MMA, IBAMA, NGOs, academic institutions, grass root organizations, the private sector
4. Monitoring of protected areas	IBAMA, states and municipalities	FUNBIO	NGOs, academic institutions, the IBGE, the SIVAM project
5. Project coordination and management	MMA, IBAMA, FUNBIO	FUNBIO	

Within MMA, the *Executive Secretariat (SECEX)* will have the duty of carrying out the overall institutional coordination required to implement project activities. SECEX will oversee the functions of the General Coordination (CG), the Program Committee (CP), and the Scientific Advisory Panel (PCA) described below. Two Technical Secretariats within MMA will participate:

- *Secretariat of Coordination for the Amazon Region (SCA)* will have the duty of carrying out the executive coordination of the Project. The SCA shall obtain from the Secretariat of Biodiversity and Forests, through the Directorate of Protected Areas (DAP) and the Directorate of Forests (DPF), approval of proposals for the creation of new protected areas and Annual Operating Plans (POAs), partial and consolidated, so that counterpart budget resources may be made available as scheduled. The SCA will oversee the functions of the Project Coordination Unit (PCU) and the Conflict Mediation Committee (CRC). (See section C.4b for additional information.)
- *Secretariat of Biodiversity and Forests (SBF)* will have the duty of participating in the General Coordination (GC) and Program Committee (CP), ensuring articulation of project activities with other projects in the secretariat, facilitating the participation of state and municipal protected areas under the Project, and allocating counterpart budget resources to the Project.

IBAMA will have the responsibility for preparing proposals for the creation of federally protected areas, managing the process of consolidating existing protected areas, preparing the Annual Operating Plans for federally protected areas, and providing the counterpart resources. The Directorate of Strategic Management (DIGET) within IBAMA will oversee the work of IBAMA and will coordinate with the Project Coordination Unit (PCU), MMA, and FUNBIO. The Directorate of Strategic Management would work closely with the Directorate of

Ecosystems (DIREC) for "strict protection" PAs and with National Center for Traditional Populations (CNPT) for extractive reserves.

The *State and Municipal Environmental Secretariats and Agencies of the Amazon Region* will be responsible for preparing proposals for the creation of state and municipal protected areas; managing the process of consolidating new and existing state and municipal protected areas; preparing the Annual Operating Plans for participating state and municipal protected areas; and ensuring the counterpart resources anticipated in the Project and promoting their application.

The project will receive technical assistance from the *Deutsche Gesellschaft für Technische Zusammenarbeit GmbH (GTZ)*. The GTZ will also support the institutional structure of the project, technical issues of protected areas, monitoring and evaluation, and the disbursement and application of KfW-supplied funds.

b. Project coordination and management. The duties and responsibilities of entities and agencies under the Project's institutional arrangement are:

- *General Coordination (CG).* An entity of MMA, the General Coordination was formed by the Executive Secretariat, the Secretariate of Coordination of the Amazon Region, the Secretariate of Biodiversity and Forests, and IBAMA. Chaired by the Executive Secretariate, the General Coordination will be responsible for overall government institutional coordination, ensuring the completion of project objectives and the articulation of project actions with environmental policies and other projects.

- *Program Committee (CP).* A deliberative, joint-administrative unit subordinate to the General Coordination, the Program Committee's purpose is to ensure compliance with proposed project objectives. To that end, the committee will approve action strategies; define procedures and guidelines; establish criteria for the signing of agreements and contracts envisioned under the Project; analyze and approve the Project's Annual Operating Plan; and analyze and issue opinions on technical and financial reports. The Committee, to be chaired by the Executive Secretary of MMA, will be comprised as follows:

Table 3. ***Members of the Program Committee***

Government	*Civil Society*
1 representative of SECEX/MMA	2 representatives of environmental NGOs
1 representative of SCA/MMA	2 representative of social NGOs
1 representative of SBF/MMA	
1 representative of IBAMA	
1 representative of the State Forum of Secretaries of Environment of the Amazon region	1 representative of FUNBIO
1 representative of municipalities	1 representative of the private donors

MMA and IBAMA representatives and alternates will be appointed by the Minister of Environment through a specific administrative act. The state representative and alternate will be appointed by the State Forum of Secretaries of the Environment of the Amazon Region. Municipalities will appoint their respective representatives and alternates in

accordance with the National Association of Municipalities (ANAMA), through the Amazonian regional section. Environmental and social NGOs shall appoint their representatives and alternates from among those who are registered in the National Registry of Environmental Entities (CNEA), and who can provide proof of their work in the Amazon region. The FUNBIO representative shall be appointed by FUNBIO's Board of Directors. The representative from the private donors will be selected by the group of donors. The mandate of Program Committee members, as well as the frequency of meetings, among other definitions, shall be detailed in the Project Operational Manual.

- *Scientific Advisory Panel (PCA).* This panel was formed by a broad spectrum of scientists from universities, research institutions, government, and NGOs to facilitate the process of identifying new protected areas. The PCA will be appointed by the Program Committee. The mandate of the panel would be to recommend improvements on the protected areas selection methodology; help identify new opportunities for conservation; and comment on protected areas proposed to be created outside accepted polygons. This mandate would help to underpin the Project's protected areas creation process with broad scientific support. It is expected that the panel would meet every six months.

- *Project Coordination Unit (PCU).* The PCU will have an executive nature, instituted under the scope of the Secretariat of Coordination of the Amazon Region (SCA) within MMA, and shall have the duty of establishing a link between the Program Committee and the different executors. The PCU will be responsible for supporting, executing, and supervising the different components; monitoring the Project's physical and financial activities; guiding project executors on the technical, administrative, and financial procedures accepted by the World Bank; formulating and systematizing documents for analysis and approval by the Program Committee; receiving POAs; carrying out the physical and financial execution reports from all executors, with the approval of SBF/DAP and DPF; and preparing the consolidated POA for the Project and the general progress report for consideration by the Program Committee and for donor review. The PCU will also act as the executive secretariat for the General Coordination (CG) and the Program Committee (CP). The PCU will call the meetings of the Conflict Meditation Committee (see below) in response to requests from the Program Committee, the General Coordination, civil society, and grass roots organizations.

- *Conflict Mediation Committee (CMC).* A permanent committee will be created by a specific administrative act of the Minister of Environment for the purpose of aiding the Project's executive coordination in negotiating and proposing potential solutions to social issues related to the creation and implementation of protected areas; and, acting as a forum for the discussion and resolution of issues related to traditional populations inside existing "strict protection" PAs. This core group will be composed by the project coordinator representing MMA and representatives from FUNAI, IBAMA (CNPT and DIREC), and INCRA. The detailed functions and operational guidelines for the CMC will be presented in the Project Operational Manual. The CMC will be established as a condition of effectiveness.

- *FUNBIO's Technical Commissions (FTC).* A technical commission on protected areas to be established within FUNBIO. This commission would oversee ARPA implementation and manage the Protected Areas Trust Fund (FAP). The technical commission would consist of members of FUNBIO's Board of Directors, government representatives, CNS, GTA, and

private donors. The composition and operation of the FTC would be spelled out in the Project Operational Manual.

- *FUNBIO's ARPA Coordination Unit (PROARPA).* FUNBIO will establish a unit, PROARPA, to carry out all responsibilities under the World Bank/FUNBIO agreement, including procurement of goods and services for the Project, financial accounting and auditing, execution of Component 3 of the Project, and the Protected Areas Trust Fund (FAP).

The organizational chart describing the institutional arrangements and the management model to be used under ARPA are presented in Annex 11.

c. Project Management. ARPA's administrative and financial procedures would be detailed in the Project's Operational Manuals that are a condition of grant effectiveness. The first manual will apply to the entire project. The second manual will be specific to the operation of the Protected Areas Trust Fund (FAP). A summary of accepted key procedures is presented below and would be further expanded in the two Operational Manuals.

Annual Operating Plans

IBAMA, FUNBIO (in its capacity as financial manager and for component 3), and state and municipal environmental agencies, where appropriate and under the scope of their respective responsibilities, would prepare Annual Operating Plans (POAs) and send them to the Project's Coordination Unit. The POAs would direct the application of financial resources allocated to the Project. The PCU would review the different POAs, seek comments from other partners such as SBF/DAP and DPF; consolidate the different POAs into a single Project POA and send it to the World Bank and other donors to seek a "no objection" decision. The Project's POA would then be sent to the Program Committee for its final approval. The PCU would forward the POA to FUNBIO and other agencies and administrative authorities in charge of POA execution. These agencies would, in turn, implement them through their internal procedures, strictly observing the terms approved by the World Bank, donors and Program Committee and the contractual rules assumed with the Bank and WWF through the grant agreements and the Operational Manual.

The KfW resources will be allocated to FUNBIO, and will finance purchases and contracting of goods and services for "strict protection" PAs included in Program Committee- and World Bank-approved POAs. POAs that include activities to be financed by KfW would be reviewed jointly by KfW and the Bank, before the Bank officially approves the POA.

Flow of Funds

1) Special Account. In order to facilitate project implementation, FUNBIO will establish a special account, in U.S. dollars, in a commercial bank. Allocation of US$2.5 million shall be authorized for projected disbursements to occur over a four month period. Disbursements would be made on the basis of statements of expenditure (SOEs), except for goods above US$100,000 equivalent, contracts with consulting firms above US$100,000 equivalent, and contracts with individuals above US$50,000 equivalent. In these cases, all contractual information must be attached to a Summary Sheet (SS). The information required for the compilation of statements

of expenditure would be maintained by the financial management unit in the Management Information System (MIS) database.

2) Protected Areas Trust Fund (FAP). FUNBIO will establish the endowment fund to receive and manage US$14.5 million from the GEF grant and the other donors' funds. (Component 3.) The GEF and matching funds will be managed by an asset manager according to investment guidelines and spending rules approved by the Bank and detailed in the FAP Operational Manual. The asset manager shall be selected by FUNBIO following Bank procurement and financial guidelines, and agreed with the Bank. The Bank's approval shall also be required for the FAP Operational Manual and will be a condition of effectiveness.

The GEF funds will be kept separate from other donors' funds. Before disbursements can occur, two conditions must be met: a disbursement agreement must be signed by the asset manager; and, the Bank must have verified the proof of matching funds. FUNBIO will submit withdrawal applications to the Bank, with attached proof showing the amount of the matching contribution made to the endowment fund. Proof of matching can be bank statements or signed contracts with donors. The Bank provides the "no objection" decision after verifying that the matching requirements have been fulfilled. Thereafter, the Bank authorizes the disbursement to the asset manager's account. Withdrawal applications may be submitted for amounts up to US$250,000. If FUNBIO has raised less than US$250,000, a withdrawal application may not be presented until proof of a minimum of US$250,000 in matching funds can be presented to trigger the Bank's deposit. The intervals of disbursements will depend on the fundraising targets reached. The fundraising plan indicates that approximately US$2 million will be raised every six months. This would trigger a disbursement from the GEF trust fund to FAP of approximately US$2 million every six months until the GEF funds allocated to FAP (US$14.5 milllion) are exhausted.

FAP will be governed by FUNBIO's Board of Directors and ARPA's Project Commission, according to procedures spelled out in the FAP Operational Manual. Annex 12 describes in detail the operation of FAP.

*3) Other accounts:*The KfW funds (US$14.4 million) would be channeled through MMA/PPG7 to a special project account also managed by FUNBIO. This account would cover direct investments under Components 1 and 2. Similar disbursement procedures as described above for the special account will apply to KfW funds and will be specified in the grant agreement between MMA, FUNBIO and the KfW. WWF would channel their funds (US$16.5 million) directly to FUNBIO into a separate account. A full description and chart showing the flow of funds is presented in Annex 6-b.

Monitoring and Evaluation of Project Results

Within MMA, a Project Monitoring and Evaluation (M&E) unit will be established that will be independent of the Project Coordination Unit. This unit will be responsible for monitoring and evaluating the Project technically. The monitoring and evaluation indicators have been agreed to and are presented in Annex 1. These indicators will also be a part of the implementation letter that would be signed together with the grant agreement. Monitoring and evaluation will be conducted through: (a) activities of the Project Coordination Unit; (b) annual progress reviews during Bank supervision missions; (c) mid-term review of project implementation to be

conducted jointly by the Brazilian government, the National Coordinating Committee, the Project Coordination Unit, the World Bank, WWF, and KfW; and (d) periodic beneficiary assessments and other special studies. The latter would include a participatory evaluation component to be carried out in consultation with local communities and NGOs, as well as an independent evaluation mechanism at mid-term and completion of Phase 1. Progress in achieving targets would be assessed during the mid-term review and again at project conclusion, upon which the decision to proceed to Phase 2 of the Project will be based. Under Component 4, biological monitoring will be carried out as well as studies and activities to capture lessons learned, disseminate results, and promote replication elsewhere in Brazil and globally. Every six months, the project administration unit will transmit to the Bank progress reports on project implementation and outcomes. An Implementation Completion Report will be prepared within six months after closing of the grant.

D: Project Rationale

1. Project Alternatives Considered and Reasons for Rejection

An alternative to the proposed Project was to place the project entirely under IBAMA. The Bank rejected this option because of the project scope, the need to ensure broader ownership, and the necessity of reinforcing IBAMA's administrative and budgetary capacity in order to achieve project objectives within the allotted time period. A second alternative was to exclude IBAMA, thereby avoiding administrative bottlenecks caused by relatively limited implementation capacity. This alternative was rejected because of IBAMA's key role and substantial experience in creating and managing protected areas in Brazil. The structure of the proposed Project builds on IBAMA's strengths and compensates for its weaknesses by incorporating numerous competent partners and stakeholders to work with IBAMA and MMA. Maximizing stakeholder participation in project management expands project ownership and increases the probability that the project's ambitious goals will be achieved within the proposed timeframe. A third option also explored was to finance the Project through the PPG7. However, the PPG7 was designed as a pilot program and works in very few areas of strict conservation use and does not have a project such as ARPA. The proposed Project is a comprehensive program to create and manage a whole system of protected areas (strict and sustainable use) designed to capture all the diversity of ecosystems present in the Amazon region. Therefore, it was decided that ARPA would be an associated program to the PPG7 . PPG7 would cofinance the Project and complement the Project's objective to expand and consolidate protected areas in the Amazon.

2. Major Related Projects Financed by the Bank and Other Development Agencies

Table 4. ***Related projects per sector issue***

Sector issue	*Project (Brazil)*	*Latest Supervision (Form 590) Ratings* *(Bank-financed projects only)*	
		Implement Progress (IP)	Development Objective (DO)
Bank-financed and -coordinated			
▪ Strengthen main environmental agencies and protected areas in Brazil	National Environment Project	S	S
▪ Strengthen and build the capacity of environmental institutions	Rondônia Natural Resources Management Project (PLANAFLORO)	U	U
▪ Promote the adoption of modern, sustainable forms of land management, and of soils and water conservation; and increase agricultural productivity primarily to small-scale farmers	Land Management I (approved FY 89)	S	S
▪ Strengthen environmental management	Mato Grosso Natural Resources Management Project (PRODEAGRO)	U	U
▪ Develop biodiversity strategies for key biomes in Brazil and promote partnerships among government, NGOs and the private sector to promote biodiversity conservation	(Biodiversity Fund Projects (GEF/FUNBIO and GEF/PROBIO)	S	S
▪ Promote sustainable natural resource management and conservation by local communities in the Amazon	PPG7-Demonstration Projects (PD/A)	S	HS

▪ Complete the legalization and assist in the protection of indigenous lands in the Amazon	PPG7 - Indigenous Lands Project	S	HS
▪ Develop and test approaches to the social, economic, and environmental management of extractive reserves in the Amazon	PPG7 - Extractive Reserves Project	S	S
▪ Implement institutional strengthening, environmental licensing, water quality monitoring, and coastal zone management	National Environmental Project (NEP II; approved)	S	S
▪ Strengthen policy analysis, and regulatory and implementation capacities, of state environmental agencies in the Amazon	PPG7 - Natural Resources Policy Project	S	S
Other development agencies			
United Nations Development Program (UNDP)- enabling activity	Management of Biological Diversity in Brazil	N/A	N/A
Interamerican Development Bank (IDB)	National Environmental Fund	N/A	N/A
German Agency for Technical Cooperation (GTZ)	Tripartite Protected Areas Management in Atlantic Forest of Minas Gerais State	N/A	N/A
Kreditanstalt für Wiederaufbau (KfW)	Protected Areas Management in Atlantic forest of São Paulo, Minas Gerais, Paraná, and Rio de Janeiro	N/A	N/A
Kreditanstalt für Wiederaufbau (KfW) and German Agency for Technical Cooperation (GTZ)	National Environmental Program–Strictly Protected Areas Component	N/A	N/A

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory), N/A (Not Applicable)

The proposed Project is closely associated with the PPG7 financed by G-7 donors and the Brazilian government. The Project's objectives are complementary to the PPG7 objectives; that is, to (a) strengthen Brazil's institutional framework and capacity to protect the Amazon; (b) support protection of specific endangered ecosystems, in particular the Amazon region and Atlantic forests, through indigenous reserves, extractive reserves, corridors, forest and floodplain management; (c) strengthen the regulatory framework of the environmental sector at

the state and municipal level; (d) support environmentally sound development initiatives carried out by local communities; and (e) support strategic research and strengthening of key research centers. The KfW has provided additional funds to the PPG7 to support ARPA. These funds will be used to finance portions of Components 1 and 2 under parallel financing.

Two GEF Pilot Phase projects—the National Biodiversity Project (PROBIO) and the Brazilian Biodiversity Fund (FUNBIO)—are directly linked to the proposed Project. PROBIO is of national scope and has supported five priority-setting assessments, a national biodiversity information network, and 22 model demonstration projects throughout Brazil. PROBIO also financed the workshop that set conservation priorities in the Amazon region. ARPA will work with those priorities to create and manage protected areas in the Amazon region. FUNBIO, is one of the major environmental funds supported by the World Bank and the GEF. This fund was established in 1996 under the GEF Pilot Phase (with a US$20 million grant from the GEF and US$10 million from other domestic and international partners). FUNBIO involves an innovative arrangement whereby release of GEF capital for the fund is tied to mobilization of matching funds primarily from the private sector. FUNBIO will be directly linked to ARPA by providing an interim institutional home for the new Protected Areas Trust Fund (FAP). Lessons learned from FUNBIO have influenced project design (see below).

UNDP has provided extensive technical assistance to the government of Brazil in a wide range of environment-related projects. The most relevant to the present proposal is the project Management of Biological Diversity in Brazil (funded by the GEF as an Enabling Activity), which is supporting National Biological Diversity Commission (COBIO) coordination efforts within MMA. COBIO has the charter to plan, monitor, and evaluate actions related to the conservation and sustainable use of Brazilian biological diversity, especially PRONABIO program activities. One result of this project is the first, recently published *Biodiversity Strategy and Action Plan*. The First National Report to the COP was published and has been used to structure ARPA.

3. Lessons Learned and Incorporated into the Proposed Project Design

Lessons have been taken from a number of projects, financed by the Bank and other institutions, that have shared the goal of establishing protected areas and effective, sustainable management systems.

Strengthening protected areas. The recently closed National Environmental Project (NEP) financed the consolidation of 30 Brazilian protected areas). Lessons learned include the importance of (a) developing clear guidelines for the creation and management of protected areas—this will be facilitated by the recently passed SNUC law; (b) improving basic equipment and infrastructure to support protected areas management; (c) involving local stakeholders (civil society, municipal, and state governments) in protected area co-management to optimize operation and to create a conservation constituency—considerable GEF project resources will be devoted to these activities; (d) assuring adequate and sustainable financing—the Project will identify financial mechanisms, require managing partners to provide matching funds, create a trust fund to defray recurrent costs, and explore best-practices to address this issue;(e) training IBAMA staff and local comanagers of protected areas to improve performance and create a

heightened awareness and sense of ownership among stakeholders—training is emphasized in the ARPA institutional components.

Demarcation of Indigenous Lands in the Brazilian Amazon. The PPG7 project has been financing the establishment and demarcation of Indigenous Reserves since 1994, the target being 150 reserves (44,153,584 hectares). Demarcation and registration will be critical in ARPA as well. The key lessons learned and incorporated into ARPA are: (a) constituency building is critical—with a strong constituency, it is possible to create many new areas in a short period of time; (b) when modern participatory techniques are employed demarcation has a better chance of proceeding efficiently; (c) costs of land acquisition are not included under ARPA since indigenous lands rights have priority over any other tenure.

Brazilian Biodiversity Fund (FUNBIO). ARPA seeks to develop long-term financing mechanisms for protected areas. From lessons learned in the FUNBIO project, the following safeguards are incorporated into ARPA: (a) a strong, active, and responsible Board of Directors; (b) a Board that works with technical commissions—small groups constituted by Board members that are delegated specific tasks and become accountable for those tasks; (c) a project director that quickly responds to the Board's direction and presents key issues requiring Board-level decisions; (d) a flexible financial structure with funds managed by an asset manager.

Other lessons learned. There is a body of experience with biodiversity projects within the World Bank and among environmental practitioners that reconfirms the importance of (a) facilitating "direct" biodiversity-conservation activities by communities or groups of people who have a vital interest in conservation, either because their livelihoods depend directly on biological resources or because their quality of life depends significantly on use and existence values of biodiversity; (b) increased participation by interested stakeholders and, in particular, local communities, NGOs, and the private sector; (c) developing a strategic policy framework for biodiversity conservation; (d) establishing financial mechanisms that fully cover operational costs on a sustainable and long-term basis; and (e) decentralizing responsibilities from the federal to state and municipal environmental agencies.

The proposed project is founded on a strategic policy framework that includes adequate financial mechanisms, decentralization of responsibilities, and a high degree of participation by stakeholders.

4. Indications of Borrower Commitment and Ownership

The Amazon forest of Brazil is recognized as a part of the National Patrimony in the Constitution of Brazil (article 225). A national consensus on the need to conserve the Amazon and other important biomes is gaining momentum. Commitment to provide support for the project is very high among participating agencies, at all levels. The proposed Project was legitimized and gained political support at the highest levels when President Cardoso pledged in April 1998 to achieve the target of at least 10 percent strict conservation of all forest types in Brazil. The Project supports Cardoso's pledge to protect the Amazonian biome, but it is expected that, as experience is gained, additional protected areas will be created in other forest biomes. Since Cardoso's pledge and during the extended time required to prepare ARPA, the Brazilian government has created a significant number of new protected areas. These are enumerated in the table below.

Table 5. ***Areas created in 1998-1999***

Name	*State*	*Decree*	*Number of hectares*	*Biomes*
P.N. do Viruá	RR	S/N - 29.04.98	227.011	Amazonia
P.N. Serra da Mocidade	RR	S/N - 29.04.98	350.960	Amazonia
P.N. Serra das Confusões	PI	S/N - 02.10.98	502.411	Caatinga e Ecótono Cerrado/Caatinga
P.N. Pau Brasil	BA	S/N – 15.04.99	11.538	Mata Atlântica
P.N. Descobrimento	BA	S/N – 15.04.99	21.129	Mata Atlântica
P.N. Restinga de Jurubatiba	RJ	S/N - 29.04.98	14.860	Mata Atlântica
P.N. Cavernas do Peruaçu	MG	S/N - 21.09.99	56.800	Ecótono Cerrado/Caatinga
R.B. União	RJ	S/N – 22.04.98	3.126	Mata Atlântica
TOTAL			1187.835	

Table 6. ***Areas created in 2000-2001***

	Name	*State*	*Number of hectares*
1	P.N. Serra da Cutia	RO	283,611
2	Resex Barreiro Antas	RO	107,234
3	Resex Rio Cautário	RO	73,817
	TOTAL		464,662

Table 7. ***Areas to be created in 2002***

	Name	*State*	*Number of hectares*
1	P.N. do Tumucumaque	Amapá	3,892,467
2	P.N. Rio Novo I	Pará	193,083
3	P.N. do Parauari	Amazonas	752,681
4	Extended Area - REBIO Uatuma	Amazonas	381,653
5	REBIO Chaldeless	Acre	686,998
	TOTAL		5,906,882

Project preparation has been guided by an interagency steering group composed of MMA, IBAMA, the Planning Ministry, and WWF. In addition, the steering group has developed a collaborative relationship with civil society and the NGO community, which strongly support the initiative. The project has been endorsed by the national GEF focal point at the International Affairs Secretariat (SEAIN) as being consistent with Brazil's national conservation strategy and a top national priority. SEAIN provided a letter in March 2002 indicating that FUNBIO would be the recipient of the GEF grant. The fact that the federal and state governments are willing to allocate US$18 million to the proposed project to support direct investments in Amazon protected areas is another strong sign of government commitment, particularly when compared with historical averages. The Brazilian government has also increased nonfinancial contributions, such as land made available from INCRA.

With regard to integration with the state governments, MMA has executed the program Positive Agenda for the Amazon (*Agenda Positiva para a Amazonia*) over the past two years. This is a transparent and constant dialogue with economic and social agents of the Amazon region including local government, NGOs, the private sector, universities, and local and indigenous communities. These actors have been involved in developing common agendas for sustainable development, and the discussions have reflected both a strong consensus as well as disagreements. At least, four draft agreements for the creation of protected areas by state governments have been received by MMA.

5. Value Added of Bank and Global Support in this Project

The World Bank possesses considerable experience in Brazil through the GEF Pilot Phase projects (FUNBIO and PROBIO), the PPG7 program for the Amazon region, the NEP I, and the state loans (Prodeagro and Planafloro), which directly or indirectly address biodiversity conservation and protected areas management. Through ARPA, the Bank will assist the government of Brazil in developing a full program on protected areas management at the regional level (the Amazon biome). The GEF funds to be disbursed under the Project will complement previous investments by developing stronger links between the various initiatives and by bringing experience garnered during the design and implementation phases. One strong aspect of the proposed project is the emphasis on developing long-term financial mechanisms for protected areas. This has also been a recurrent issue in NEP I, Prodeagro, and Planafloro. The Bank is well positioned to assist the Brazilian government and FUNBIO in this aspect of the project due to the fact that the Bank supervises GEF-funded Protected Areas Endowment Funds in 10 countries in Latin America.

The value added by the GEF stems from the fact that GEF funds can be committed toward permanent endowment funds and can catalyze the mobilization of additional resources. Without GEF and Bank involvement it would be very difficult to create and consolidate the protected areas in the Amazon region and bring lessons from other countries and regions.

E: Summary Project Analysis

1. Economic

The proposed Project has been evaluated using the GEF incremental cost methodology (for details, see Annex 4).

2. Financial

A long process of estimating ARPA costs has been carried out with the assistance of WWF and their ARPA Private Sector Task Force (including pro-bono advice from Goldman Sachs and PriceWaterhouse Coopers). The final projected costs associated with Phase 1 and for the total 10-year program are presented in Annexes 3 and 5. The Project is top priority for the Ministry of Environment (MMA), as shown by the fact that the Brazilian government's four-year plan (PPA) has allocated US$18 million to ARPA. The US$18 million will support the creation and implementation of the new and existing Amazon protected areas. During appraisal, KfW confirmed their contribution of US$14.4 million for creating and consolidating several protected areas of ARPA. The KfW funds will be channeled through the PPG7 program. In addition, GTZ will provide technical assistance worth US$ 1.0 million. During appraisal, WWF confirmed their intention to raise US$11.5 million for the creation, consolidation and administration of protected areas.

The GEF contribution to the endowment fund is US$14.5 million, contingent on a 1:1 match from other donors. This potential capital of US$29 million represents the initial contribution to the much larger endowment that will be required to cover the recurrent costs of the protected areas created and consolidated under ARPA. During appraisal, a strategy to secure the resources needed by the endowment fund was agreed. This strategy consists of: (1) a letter of intent by the ARPA donors to support the long-term goals of ARPA of which this project is just the first phase; (2) a strategy to raise the funds needed by the endowment fund; and (3) agreed spending rules for the use of the endowment fund revenue. WWF has pledged to raise a minimum of US$ 5 million match for the endowment fund. Brazil Connect has confirmed their contribution of US$ 1.5 million match for the endowment fund. The remaining US$ 8 million needed to match the GEF funds will be raised through a fundraising campaign designed as part of the strategy above and in conjuction with FUNBIO.

The total cofinancing package confirmed during the appraisal and negotiations by WWF, KfW, GTZ, the Brazilian Government and Brazil Connect was US$51.5 million. (see section C.4 on institutional and implementation arrangements, for details on the sub-components that each donor will finance). This total will increase during project implementation by an additional US$8.0 million, the minimum amount to be leveraged for the endowment fund in order to access the GEF funds toward the endowment. The government of Brazil has also appropriated funds from other PPG7 funding sources (PPTAL, PPDI, Ecological Corridors, and others) to support buffer zones of the ARPA protected areas. State and municipal governments have expressed their interest to support the Project and their willingness to participate by setting aside areas for conservation.

3. Technical

The technical studies required for project preparation have been finalized by the preparation team with PDF-B financing through the WWF-Brazil under the World Bank/WWF Alliance. The studies performed included: (a) ecoregional representation and priority setting exercises to select candidate zones for the creation of new parks (Component 1); (b) institutional and legal framework for the protected areas (Components 1 and 2); (c) review of current income-generation activities in Brazil; (d) review of lessons learned from PPG7 sustainable development and direct-use protected areas; (e) two workshops to test the methodology to create protected areas in the Amazon; (f) indigenous strategy for the project; and other relevant studies. A full list of technical reports is available in Annex 8.

The criteria to select protected areas so that they better address other federal government programs, such as the Eixos de Desenvolvimento, were raised during the project concept stage and have been revised by a team composed of WWF, the Bank, IBAMA, and MMA. The document describing the criteria and process to select protected areas is available in project files and a summary is presented in Annex 14. To ensure that the selection process is transparent and that the biodiversity criteria are kept throughout the life of the project, a scientific/technical advisory committee would be established to oversee the candidate areas and review their biological importance. One technical issue faced during early stages of preparation is the size of protected areas. The proposed Project design intends to work with an average size per park of 650,000 hectares instead of 500,000 hectares. In addition, during preparation, funds from the WWF/WB Alliance were used to support feasibility studies to create one new park in the Amazon. This park, Tumucumaque National Park, will be approximately 3 million hectares in size. The proposal has been submitted to Congress and will be passed soon.

Another technical issue worth mentioning is the Brazilian government's request for the project to include the creation of new *categories* of protected areas (Extractive and Sustainable Use Reserves). Since the project concept stage, the government has refined its strategy for the Amazon as a result of consultations with the states and civil society. The government's previous experience in creating a more socially sustainable protected areas system in the Amazon points out that the system needs to be designed in a comprehensive way, allowing for a mosaic of protected areas adjacent to each other. The category of these protected areas and their permitted uses are designed with the full participation of the local actors The result is that these areas support each other instead of working against each other. Because it is the major local actors that determine this mosaic through a consensual process and with technical support from the government and other organizations, proposals have a broader ownership basis. In summary, ARPA now includes the creation of 9 million hectares of Extractive and Sustainable Development Reserves in addition to the strict conservation areas target (9 million hectares).

Protected Areas Trust Fund design. The Protected Areas Trust Fund (FAP) for protected areas in the Amazon is critical to the success of the Project. Following the project concept stage, the need to create a trust fund for the Amazon protected areas became clearer to the Brazilian government. Creation of the fund has been a lengthy process of negotiations and learning from other trust funds operating in the region. The design of the Protected Areas Trust Fund will be fully consistent with the recommendations of the GEF council's Evaluation of Experience with Conservation Trust Funds (1998). The Mexico Protected Areas Trust Fund has been used as an example for FAP. ARPA has also benefited from technical assistance in the financial viability

and design of this trust fund from the pro bono advice of Goldman Sachs (a full report prepared by the firm is available in the project files). FAP will use the existing structure of FUNBIO. Although the trust fund will not solve the recurrent cost needs of all Amazon protected areas, it can be used for critical protected areas with limited possibility to generate income and can complement those that would be supported under the Project's planned income-generating activities. For details on FAP issues, refer to Annex 2, Component 3 and Annex 12.

4. Institutional

4.1 Executing agencies

The management of protected areas in the Brazilian Amazon region is the primary responsibility of two federal institutions under the MMA and IBAMA. State and municipal governments also participate in the management and administration of protected areas. In recent years, the Brazilian government has promoted the involvement of Brazilian society, in general, in conservation issues. Through meetings and workshops, local communities and their representatives now take a more active part in all stages of the planning and implementation of protected areas, frequently carried out through partnerships between government institutions, NGOs, and other institutions and organizations of the private sector.

The Bank provided loan funds to IBAMA under the National Environment Program (NEP I) for institutional strengthening and management of a number of protected areas. (See section D.3 for lessons learned). While improvements resulted, protected areas management continues to be problematic. Major problems include: (a) management is overly centralized; (b) protected areas are scattered and often too small (less than 100,000 hectares) to ensure genetically viable populations of the larger, wide-ranging species such as top predators; (c) IBAMA resources are insufficient to manage effectively a large number of small units; (d) protected areas are inadequately staffed and lack skilled staff—on average, there is one IBAMA employee for every 27,560 hectares of protected areas, and only 20 percent of the 575 employees administering protected areas have a higher education); (e) budgetary processes are centralized and inflexible.

The institutional arrangements are detailed in section C.4. The MMA and IBAMA have increased their capacity to manage and coordinate complex environmental projects with differing objectives (PPG7, NEP I, etc.). The MMA has a relatively small core staff, but it has shown that it can make good use of expert consultants and other institutions to achieve the level of expertise and quality required to implement projects. The MMA and IBAMA have also acquired considerable expertise in budgeting, project accounting, procurement, and coordination of external executing agencies, at all levels of government and in the private sector. Under the National Environment Project (NEP I), MMA acquired considerable experience in administering a decentralized program of investments. This experience will help the Project Coordination Unit, IBAMA and the MMA meet the requirements of the project. Consultant and Bank staff have conducted an institutional capacity assessment of IBAMA and of FUNBIO, the two major partners in ARPA. The resulting recommendations have been incorporated into the project design. Copies of these reports are available in the project files.

ARPA is an estimated 10-year program and includes many partners. Although the Project currently is being prepared for Phase 1 implementation, the expectation is that the Project will have two additional phases. A Memorandum of Understanding between the World Bank, WWF, the GEF and the government of Brazil will ensure the long-term viability of ARPA.

4.2 Procurement and financial management

Procurement and financial management arrangements have been reviewed by World Bank specialists and are considered satisfactory to initiate project implementation subject to execution of the prerequisite action plans. Assessment of the procurement capacity of PROARPA (the unit within FUNBIO responsible for procurement) to implement procurement actions for the project is complete and was approved by the Regional Procurement Advisor on June 21, 2002. The assessment reviewed the proposed organizational structure and found it reasonable. However, before effectiveness, the FUNBIO offices in Rio and in Manaus require new staff and procurement training for existing staff. In addition to procurement capacity assessment, a financial management assessment was carried out and finalized in June 24, 2002. In the past, FUNBIO has hired an accounting firm to deliver all accounting services. The accounting firm produces all accounting reports and, based on these reports and accounting records, FUNBIO produces its management reports. As a result of the financial management assessment carried out by the Bank, it was agreed that FUNBIO would establish an accounting department to manage the financial and accounting activities of ARPA before effectiveness. This accounting unit would oversee the financial and accounting activities of the Special Account and of the endowment fund (FAP). FUNBIO would also have in place a financial management system to generate financial, physical monitoring, and procurement reports (FMRs) on use of the GEF grant monies, donor contributions, and the government's counterpart funds.

5. Environmental

5.1 Environmental assessment

No major adverse environmental impacts are expected as a result of this project. The Category B has been assigned to ARPA. ARPA's main goal is to create and consolidate protected areas in the Amazon region. Despite the largely positive and neutral project environmental impacts, some sustainable use subprojects in the buffer areas of the protected areas could trigger OP 4.01 and OP 4.36. Mechanisms have been put in place that will screen for environmental safeguards before any investments are made. Prior to appraisal, the Borrower submitted an Environmental Annex on April 23, 2002 (prior to appraisal) that addresses OP. 4.01 and OP 4.36. This information is presented in Annex 18. Key provisions of the Environmental Annex will be incorporated within the Project Operational Manual.

5.2 Main features of the Environmental Management Plan (EMP)

Environmental Policy OP 4.01, BP 4.01. The subprojects in the buffer zones of protected areas would support sustainable activities with minimum environmental impact under Components 2 and 3 of ARPA. These activities are meant to strengthen the conservation activities of the protected areas, and would be identified in the management plans of the protected areas. Once the protected areas have been identified, proposals would be prepared to request funding from ARPA. The proposals for these subprojects would be submitted to the Program Committee,

which would assess their value and identify whether they are eligible for ARPA funding. The proposals would include a section on the environmental issues of the activities, and explain whether or not they have environmental impact; if they have impacts, the proposal shall describe how these will be mitigated. An environmental assessment would be developed as needed. IBAMA or the state environmental agency (depending on whether it is a federal or state protected area) would screen for the environmental impact of these proposals before they are submitted to the Program Committee for final approval. Eligibility criteria will be spelled out in the Project Operational Manual. If a proposed subproject is not eligible, the Program Committee may recommend other funding sources. The required management plans shall include a zoning plan that takes into account the ecological fragility and biological importance of different zones within the protected area, and that spells out the uses permitted within each zone. The management plans would be sent to the Bank and donors for approval before the management plans are implemented. IBAMA or the state environmental agency would also ensure that the proposed sustainable use activities adhere to the zoning proposal. No disbursements for sustainable use activities would be made until the management plans for the areas have been approved. Finally, no roads will be built in the protected areas with any of the Project funds.

Because FUNBIO would be supporting the implementation of pilot subprojects under Component 3, FUNBIO would be responsible for the screening of any of the environmental impacts of the proposals for sustainable use activities, following the same mechanism described above.

Forestry Policy OP 4.36. In extractive reserves, only community forestry is allowed under the newly passed SNUC law. Community forestry was not allowed in extractive reserves before the passing of this law. ARPA would ensure that any activity of this type is done according to the Bank's Forestry Policy. Article 7 of SNUC states that the exploration of timber resources in extractive reserves will only be permitted under sustainable schemes and in special circumstances, and should be complementary to the other activities developed within the extractive reserve, according to the dispositions in the regulations and based on the management plan for the reserve.

To ensure that the Bank's Forestry Policy is applied to community forestry in extractive reserves, the following has been agreed:

Bank's review of Management Plans under Component 1. The unit at IBAMA responsible for overseeing the extractive reserves is CNPT. Extractive reserves cannot undergo any use before a management plan is approved. Management plans for extractive reserves would be supported under ARPA and would be prepared according to IBAMA's rules. Management plans would follow similar guidelines (*Roteiro Metodologico do IBAMA*) to those used by DIREC for parks and reserves. The management plan would consist of four major sections: the Utilization plan, Development plan, Business plan, and plan's duration. Detailed guidelines on management plans for extractive reserves will be included in the Project Operational Manual. A study carried out by CNPT shows that, in the past, extractive reserves have the potential to generate income from activities such as the harvesting of rubber, nuts, and timber; ecotourism;, and environmental services. The management plans would discuss all of these alternatives. In the extractive reserves implemented by CNPT, timber is mainly extracted by local communities to use it as material for art crafts rather than for the selling of whole logs. The management plans

are prepared by the communities living in the areas and are approved by IBAMA. In the event the communities request timber extraction as part of a larger program of Reserve utilization, the section in the management plan on utilization would include, among other pertinent aspects, species inventories, mode of extraction, quantity, reforestation procedures, and if available, planned certification schemes.

The procedures explained above are described in greater detail in Annex 18 and will be included in the Project Operational Manual. If the regulation of SNUC is approved and the new regulation changes the current guidelines for preparing the management plans, the Bank would revise the context of the new regulation and its effect on the Project and, if necessary, request that the Brazilian government modify the procedures spelled out in Annex 18.

Eligible activities under Component 3. Once the management plans of extractive reserves are approved by the Program Committee and IBAMA, and reviewed by the Bank, certain extractive reserves may be eligible to receive funds from the Project's endowment fund. The eligibility criteria are limited to surveillance and enforcement activities in the intangible areas of the reserve. Additional eligibility criteria would be applied to the selection of extractive reserves for funding. These eligibility criteria are: (a) an approved management plan; (b) the creation of a local inhabitants association for the reserve; (c) a completed assessment of the reserve population; (d) an established Local Advisory Committee; (e) an approved POA; (f) at least 90 percent of it's the protected area's original forest cover remains; and, (g) all World Bank safeguards are fulfilled.

5.3 Timeline and status of environmental assessment

The Borrower submitted an Environmental Annex prior to appraisal which, after QAT review, has been sent to the InfoShop (April, 2002).

5.4 Stakeholder involvement

A number of consultations with stakeholders that live and work near protected areas in the Amazon have been conducted through the social consultation process described in section E.6. Stakeholders have manifested their demands for sustainable development initiatives to be financed in the protected areas' buffer zone as a way to provide them with sustainable livelihood alternatives. Project design addresses such a demand and assures that this can be met without harmful environmental impact.

5.5 Environmental indicators

The M&E program for ARPA (Component 4) includes detailed indicators on changes in land uses and ecosystem health as well as indicator species and social indicators. The M&E system is designed to give early warning to managers of protected areas to permit mitigating actions. The indicators fully reflect the project. The M&E program would assist and guide the development of activities to be permitted in the parks and reserves. In addition, workshops would be conducted with Directors and staff of protected areas under the Project to improve their capacity to evaluate environmental impacts, implement the legislation, and design mitigation measures. Protected area staff would also be given an opportunity to refine the checklist of activities requiring environmental assessments and activities that should not be permitted, as well as

methods for implementing the checklists to ensure that the rules reflect the practical need in the field.

6. Social

6.1 Key social issues and planned social development outcomes
(see Annex 16 and 17)

The social aspects of the Amazon region relevant to project preparation have been analyzed in a comprehensive study and through a series of workshops that culminated in the publication of the book *Biodiversidade na Amazonia Brasileira* compiled by the Socio-Environmental Institute (ISA). This comprehensive work was financed by the Bank/GEF-financed operation PROBIO, and has been the basis for the definition of the Project's social strategy, which is described below.

Indigenous People Policy–OD 4.20. The Project triggers OD 4.20 (Indigenous Peoples) since the project is located in the Brazilian Amazon where most of the indigenous population of Brazil is located. A central premise of the proposed project is that the success of identification, demarcation, and protection of protected areas depends on direct involvement and participation of the local population. Another keystone of the Project is that it will not support creation or consolidation of any protected area that includes or overlaps with indigenous lands. The decision of whether an indigenous land overlaps with a protected area will be based on the official maps of IBAMA and FUNAI, and consultation with key NGOs working on indigenous issues such as ISA and COAIB. Brazilian legislation requires consultation and participation of local and indigenous communities in regularization and other activities affecting their lands. According to Brazilian legislation, indigenous territories and their demarcation are conceded priority over any other land claim or proposed government land use designation. ARPA will rigorously verify that none of the areas to be created or consolidated will overlap or affect indigenous lands.

Annex 16 outlines the Brazilian government's general strategy with regard to indigenous peoples in the context of ARPA. This strategy was publicly disclosed in Brazil on May 28, 2002, prior to appraisal, and was subsequently reviewed and endorsed on June 24, 2002 by the LCSES QAT, prior to negotiations. For each proposed new protected or existing protected area for consolidation, a preliminary screening would be done to ascertain whether indigenous peoples are present inside or near the targeted area. This screening would be performed by the Conflict Mediation Committee. Whenever the creation and implementation of a protected area would have a significant direct or indirect impact on indigenous people, MMA will follow the consultative process established in the Project Operational Manual and prepare a specific plan agreed with the Bank. This plan would be approved by the Bank prior to any actions, other than studies and consultations, being taken in the area. In addition, when protected areas border indigenous lands, the Project would support, as part of the protected area management plans, the development of culturally appropriate activities determined necessary to assist the indigenous people. Such activities would be prepared with the full participation of the indigenous people near the protected area, and would be financed by a variety of sources such as the PPG7, the PDPI, other government funding, and some of the community subprojects in Component 2 and revenue generating activities in Component 3. Prior to effectiveness, MMA will sign a cooperation agreement with FUNAI to assure that indigenous lands will be properly identified

and demarcated before implementation of protected areas. In this agreement, the responsibilities of FUNAI vis-a-vis the demarcation of indigenous territories and any activities related to ARPA by indigenous peoples would be spelled out, including a commitment to prioritize the demarcation of indigenous areas adjacent to protected areas to be created under ARPA and to provide the certification that the proposed boundaries of a protected area do not overlap with indigenous lands. ARPA is currently being proposed as an associated project to the PPG7. Before effectiveness, ARPA will be fully integrated to the planning of the PPG7; thus, the Project will have assurances that indigenous lands identified in the vicinity of proposed new protected areas will receive priority for financing. Also, prior to effectiveness, the Brazilian government will agree with officials and donors of the Indigenous Demonstration Project (PDI) on appropriate mechanisms for assuring the availability of financing to assist indigenous peoples in the vicinity of protected areas.

Resettlement–OP 4.12. Annex 17 presents the Brazilian government's strategy to address issues of resettlement. The Resettlement Policy and Process Framework, consistent with the Bank's guidelines, were publicly disclosed on May 28, 2002, prior to the ARPA appraisal mission, and were subsequently reviewed and endorsed on June 24, 2002 by the LCSES QAT. The Project is likely to encounter situations where local communities and traditional communities are located in protected areas to be created or consolidated and, therefore, would be affected by the Project. SNUC allows for categories of protected areas, such as Extractive and Sustainable Use Reserves that belong to the federal government, where conservation of the forest ecosystems needs to be reconciled with the use of the forest products by local populations so that they can develop over generations. SNUC also takes into account local culture and past experiences in managing natural ecosystems. To the extent that such areas can be created to accommodate traditional populations, resettlement would be unnecessary. In these types of protected areas, local populations remain in place and can use the natural resources under management plans prepared by them and approved by IBAMA. In cases where such management plans restrict the use of resources that were formerly utilized by the local population for a substantial proportion of their livelihood, OP4.12 is triggered. Prior to implementation of the protected area, a Process Framework, agreed with the Bank, would be negotiated with the affected population to allow them to remain in place while developing alternative resources and practices that will effectively replace any that may be lost.

Other types of protected areas that would be considered under ARPA include parks and reserves. In such areas, local populations are not permitted. The National System of Conservation Units Law (SNUC, 2000) requires that people in three categories of protected areas be resettled. In view of the SNUC law, the stated policy of MMA is to avoid resettlement by creating "sustainable use" protected areas or by reclassifying existing protected areas to accommodate traditional populations. If, during the preliminary screening process, it is determined that resettlement is unavoidable, the process triggers OP4.12. MMA has submitted a Resettlement Policy document that lays out the procedures that would be put in place under the Project to deal with potential resettlements. In such cases, a Resettlement Plan agreed with the Bank would be prepared prior to implementation of a new protected area or consolidation of an existing protected area, and MMA/INCRA would ensure appropriate financing. MMA has agreed to sign a cooperation agreement with INCRA prior to effectiveness to assure financing and institutional responsibility to carry out any resettlement that may become necessary under ARPA.

6.2 Stakeholder participation in the project

Preparation of the project has been undertaken as a collaborative effort among stakeholders. An Advisory Committee has been operating since earlier stages of preparation to oversee project design. The Committee is comprised of MMA, IBAMA, WWF, FUNBIO, National Council of Rubber Tapers (CNS), and Amazon Working Group (GTA). In addition, NGOs and international agencies have been consulted during this initial organizing phase; these included FUNATURA, USAID, Institute for Society, Population and Nature (ISPN), the Nature Conservancy (TNC), the British Council, GTZ, PNUD, and Socio-Environmental Institute (ISA). MMA sponsored a key social forum, the Macapa Workshop, in September 1999 to establish priority areas for Amazonian biodiversity conservation and to identify actions supporting regional sustainable development. The Macapa Workshop and prior preparations were coordinated by a consortium of NGOs, including ISA, GTA, IMAZON, IPAN, ISPN, and CI. A total of 226 participants were involved in the workshop (see complete list of participants and affiliated organizations at http://www/socioambiental.org/bio/index.htm). The Workshop was attended by a cross section of community, NGO, indigenous, private sector, governmental and environmental specialist stakeholders. An Evaluation Committee was also established to advise the workshop organizers during the entire process. They included the following organizations: INPA, Museu Emílio Goeldi, Embrapa, UFPa, Sociedade Civil Mamirauá, FASE, Aimex, CNA, CNS, COIAB, FETAGRI-PA, MMA, IBAMA, SECTAM/PA, OEMA do Amapá, Coordenadoria de Saneamento e Meio Ambiente de Santarem e Prefeitura Municipal de Xapuri. COIAB is the indigenous organization for the Amazon. The following indigenous organizations participated in the workshop: Federação Das Org. Indígenas do Rio Negro - FOIRN Conselho Indigena de Roraima - CTICentro de Trabalho Indigenista, and COIAB.

Workshop results underpin the ongoing protected areas selection process. The Project itself is also conceived as a highly collaborative and participatory exercise to ensure ownership of beneficiaries and stakeholders, and to facilitate efficient implementation.

6.3 Collaboration with NGOs and other organizations in civil society

ARPA has been discussed very widely over the last two years. The proposal has been submitted for comments to social organizations in the Amazon (GTA, CNS, CONTAG, COIAB, and ASMUBIP) and to FUNBIO's Board which has a broad NGO representation. Other participatory processes have taken place since the early phase of project development and help test the procedures for continued public consultation during project implementation. Two workshops were organized, one in Rondônia and one in Roraima, financed by the WWF/WB Alliance, to create a set of new areas and develop a methodology for public consultation during project implementation. These workshops were carried out in October and November 2000. One case study involved the creation of an indirect use area (park) and of two extractive reserves in Costa Marques, Rondônia. The second case study involved the preparatory workshop for the consolidation of a mosaic of protected areas of indirect use (parks and ecological stations) in Caracaraí, Roraima. In both cases, the methodology was assessed by a variety of actors and found appropriate for the proposed objectives of ARPA. Annex 15 describes the participatory methodology to be used under ARPA that was based on the result of these workshops.

The Brazilian government recently gave one additional seat in the Program Committee to social NGOs. The Program Committee that will operate during project implementation has six government representatives (SECEX/MMA, SCA/MMA, SBF/MMA, IBAMA, State Forum of

Secretaries of Environment of the Amazon Region, and municipalities) and six representatives from civil society (two social NGOs, two environmental NGOs, one FUNBIO member, and one donor).

6.4 Institutional arrangements to ensure that the project achieves its social development outcomes (see Annex 16 and 17)

Indigenous Peoples Plan. The Program Committee and Conflict Mediation Committee (CMC) to be established will operate under the MMA to ensure that the Indigenous Strategy and the specific Indigenous Peoples Plans are implemented. The purpose of the CMC is to assist the Project's executive coordination in negotiating and proposing potential solutions to social and indigenous people issues related to the creation and implementation of protected areas; and, acting as a forum for the discussion and resolution of issues related to traditional and indigenous populations inside existing "strict protection" PAs. This core group would be composed by the project coordinator representing MMA and representatives from FUNAI, IBAMA (CNPT and DIREC), and INCRA. The detailed functions and operational guidelines for the CMC will be presented in the Project Operational Manual. In addition, the MMA will sign an agreement with FUNAI that will set forth FUNAI's and MMA's responsibilities in the implementation of the relevant Indigenous People Strategy that is an integral part of ARPA.

Resettlement Policy Framework and Process Framework. The Program Committee and the CMC would oversee all aspects of the project, including the application of the Resettlement Policy and Process Framework agreed for the project. In addition, if aspects of the application of the Framework apply to traditional communities, IBAMA would carry out the activities agreed. If other inhabitants need to be considered, INCRA, through an agreement with MMA would oversee that the procedures in the Resettlement Policy and Process Framework are applied.

6.5 Monitoring of social development outcomes

Monitoring indicators of social development outcomes would be incorporated into the Project Operational Manual and would be part of the activities included in Component 4 of the Project (Monitoring and Evaluation).

7. Participatory Approach

7.1 Primary beneficiaries and other affected groups

Since its inception the Project has been framed as a collaborative effort among stakeholders. WWF initiated the process, including important international and national NGOs in Brazilian briefings that prepared the ground for the creation of an Advisory Committee to oversee the elaboration of the GEF proposal. The Committee comprises the World Bank and principal government ministry and NGO project sponsors, including MMA/IBAMA and the WWF. To elaborate the proposal, the Committee, in turn, created a task force composed of MMA, IBAMA, WWF, the World Bank, and environmental specialists. Local groups, NGOs, and aid agencies consulted during this initial organizing phase included FUNATURA, USAID, ISPN, the Nature Conservancy (TNC), the British Council, Grupo de Trabalho da Amazonia (GTA), Rede Brasil de Bancos Multilaterais, GTZ, PNUD, and Instituto Socio Ambiental (ISA).

The federal government sponsored a key social forum, the Macapa Workshop, and two local workshops in Roraima and Rondônia, already mentioned in section E.6. Section C.4 on institutional and implementation arrangements lists the partners that ARPA would have during its implementation.

The project itself is being framed as a highly collaborative and participatory exercise to ensure ownership of beneficiaries and stakeholders, and to facilitate efficient implementation. Participation of stakeholders is programmed in each of the five components, as summarized below. Annex 15 describes the participatory method to be used to create new protected areas.

Component 1—Creation of new protected areas. Evaluation of local conditions require participatory social and environmental analyses. The process and its implications for local communities would be fully disseminated through a social communication campaign. Demarcation activities would include local and especially indigenous people and/or their representatives. The ongoing process of updating information bases, including socioeconomic information, would also rely on local participation.

Component 2—Consolidation of protected areas. Selection criteria for existing protected areas already include stakeholder participation and NGO activity in the candidate area based on the participatory management plans. The partnership paradigm for this component would promote the involvement of local groups and NGOs in protected areas and buffer zone management, and would provide training as necessary. Protected Areas Management Councils would be formed from local government and private stakeholders. The development of management plans and identification and implementation of any revenue generating activities will be participatory, and would be openly discussed with beneficiaries and those affected.

Component 3—Long-term sustainability of protected areas. Two workshops, one in Ecuador (June 2000) and one in Mexico (November 2001) discussed successful mechanisms for financing parks in Latin America. Team members from ARPA participated in these meetings. In addition to the FAP, this component will delve into market-driven revenue generation instruments to support protected areas management. Market-driven mechanisms include ecotourism, services, royalties, and fiscal incentives (see Annex 2). Plans would be developed to pilot instruments/mechanisms, and these would involve local and indigenous community consultations to ensure that they are feasible and demand-driven. Also, a subcomponent would disseminate information on protected area laws and regulations to affected populations, and would monitor closely for anomalies.

Component 4—Protected area monitoring. While this component is more technical it would also involve collaboration at the technical level with SIMBIO and organizations specialized in monitoring. The results of monitoring, which would include project implementation progress as well as environmental monitoring, would be broadly disseminated.

Component 5—Project Coordination and Management. A National Coordinating Committee would work with public sector and Civil Society Organization (CSO) representatives to assure that guidelines are functional and being implemented properly, and to generally monitor project progress. The results would also be widely available to interested parties.

7.2 Other key stakeholders. Key stakeholders in ARPA are discussed in section E.6.

8. Bank Safeguard Policies

8.1 .This project involves (check applicable items):

	Policy
x	Environmental Assessment (OD 4.01)
	Natural Habitats (OP/BP/GP 4.04)
x	Forestry (OP 4.36)
	Pest Management (OP 4.09)
	Cultural Property (OPN 11.03)
x	Indigenous Peoples (OD 4.20)
x	Involuntary Resettlement (OP 4.1230)
	Safety of Dams (OP 4.37)
	Projects on International Waterways (OP 7.50)
	Projects in Disputed Areas (OP 7.60)

8.2 Business Policies (check applicable items):

	Financing of recurrent costs (OMS 10.02)
	Cost sharing above country 3-yr average (OP/BP/GP 6.30)
	Retroactive financing above normal limit (OP/GP/BP 12.10)
	Financial management (OP/BP 10.02)
	Involvement of NGOs (GP 14.70)
x	Other (see 8.2a. below)

8.2a Issues involved, not already discussed above

Two Bank policy exceptions apply to ARPA: (a) FUNBIO will establish an account where a portion of the funds will be advanced upfront toward the FAP (Component 3). These funds will not be managed through a special account but by an asset manager agreed with the Bank and under investment guidelines and spending rules approved by the Bank. This special disbursement and management system has been adopted for ARPA under the exception to the application of disbursements and trust fund policies for GEF-supported Conservation Funds approved by Bank senior management on March 15, 2002. The FAP account will be managed like an endowment fund, where only the income from the investments will be used to finance the recurrent costs of protected areas. (b) The Operational Memorandum Bank Policy on Financing Income Taxes, issued on June 13, 2001, clarifies the Bank's policy against financing local income taxes in Bank-financed operations. One clarification is that nonprofit, nongovernmental organizations can use grant proceeds to pay taxes. The proposed project applies this rule.

F: Sustainability and Risks

1. Sustainability

Sustainability will be achieved through the following measures:

a. The independent and accountable private endowment fund (FAP), within the institutional context of FUNBIO, will manage capital funds in such a way as to provide assured, long-term flow of resources to the protected areas, in accordance with Bank-approved investment guidelines.
b. At the protected area level, identification of cost-recovery and cost-financing mechanisms, which will be used to augment FAP support and government budgetary allocations.
c. The adoption of participatory planning mechanisms and strategic partnerships with stakeholders, as well as social assessments and monitoring of conditions ensuring social sustainability of the Project.
d. Building a strong management capacity in MMA, IBAMA, FUNBIO, and at the local protected area level ensuring the institutional sustainability of the Project.
e. Building partnerships with other public programs and civil society, together with other national and international institutions, to assure a more comprehensive approach to the root causes of biodiversity loss.

2. Critical Risks

Table 8. ***Critical risks and minimization measures***

Risk	*Severity*	*Risk Minimization Measures*
From Outputs to Objectives (Creation of PAs)		
1. Inadequate support by Brazilian government, especially following elections	N	Project will be presented during Cardoso administration; social marketing/ dissemination will build on existing or on already existing conservation constituency; financial mechanisms minimize Federal cost and reduces PA burden
2. Difficulty in identifying/ prioritizing new PAs	N	PROBIO workshop, studies, continual updating and evaluation of databases by technical team will ensure optimization; detailed criteria for prioritization agreed; a scientific advisory committee will oversee process
3. Difficulty in creating PAs from priority list owing to conflicts, bureaucratic impediments	N	Federal, state and municipal support forthcoming; approach of creating a mosaic of PAs will reduce conflicts; most PAs on unclaimed Federal lands, many remote; SNUC law facilitates work; participatory methodology tested and agreed; conflict meditation committee will operate to address and resolve conflicts

Consolidation of PAs		
1. MMA/IBAMA managerial weakness	S	Project to be administered by a private organization (FUNBIO), commitment to high profile project will ensure efficiency; experience with previous projects; high level Program Committee will be created to oversee and assist; GTZ technical assistance will be available; decentralized management augmented by financial incentives, partnerships, and constituency building will facilitate
2. Required funding not forthcoming for program, especially given Brazilian government constraints	S	Cost to Brazilian government will be minimized; international organizations will assist in trust fund capitalization; significant potential for cost recovery measures will be developed; nongovernmental partners will have funding commitments; revenue generating activities will be identified through forthcoming workshop and detailed studies
Development of Financial Mechanisms		
1. Trust fund (FAP) capitalization inadequate	M	WWF has committed to raise funds for the trust fund; FUNBIO experience demonstrates feasibility/will facilitate establishing and capitalizing fund; high profile project and social marketing/ dissemination will facilitate marketing campaign
2. Instability of financial market would limit endowment earning	M	Diversified, risk-management investment portfolio according to prevailing market conditions
From Components to Outputs (Creation of PAs)		
1. Social Conflicts	M	Participatory approach will extend ownership and strengthen existing constituency; risk management and participatory training will be given PA management; plans for resolving land use conflicts will be prepared as part of PA preparatory work; a Conflict Mediation Committee will be operating under the project
Consolidation of PAs		
1. Community Development Plans not participatory/without ownership	M	*Idem* above; plans will require community endorsement and this will be confirmed through M&E; Indigenous People Plans will be required; local PA councils will be required

Development of Financial Mechanisms		
1. Trust fund (FAP) fund raising inadequate; amount required underestimated	M	Each PA will be required to address this issue in its Plan and funding will be a management partner responsibility; international assistance to capitalize the trust fund will be forthcoming
Monitoring & Evaluation Program		
1. Environmental and project monitoring proves too complicated	N	IBAMA's SIMBIO will greatly facilitate the activities; technical assistance will be provided at all levels to facilitate M&E; elaboration of detailed Operational Manual for M&E
Project Coordination		
1. PCU incapable of managing complicated multistate project, multipartner program	S	Decentralized, participatory management paradigm should strengthen management capability; M&E will have strong, multidisciplinary team; TA will be available at all levels for management support; financial/legal mechanisms and incentives plus social marketing and constituency building expected to ease project implementation
2. Institutional complexity can delay implementation	S	The different responsibilities have been spelled out in all the implementation agreements; preparation of POAs will start six months before approval to give time to all institutions to carry out their parts; close monitoring by the Bank and donors to ensure that the project can be implemented speedily
Overall Risk Rating	S	

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

G: Grant Conditions

1. Effectiveness Conditions

a. Presidential Decree establishing ARPA passed.
b. Implementation Agreements between FUNBIO and MMA, and between FUNBIO and IBAMA signed.
c. Cooperation Agreements between MMA and FUNAI/MDJ and between MMA and INCRA/MDA both agreed with the Bank have been signed.
d. The internal ARPA unit (staff and procedures) within MMA (PCU) and within FUNBIO (PROARPA) are established and operational, including hiring of financial staff.
e. The two Operational Manuals (one for the whole project and one for FAP), has been issued by MMA, IBAMA, and FUNBIO.
f. The WWF/FUNBIO agreement signed.
g. Terms of Reference for audit services agreed with the Bank.

h. The Financial Management System is in place.
i. Legal opinions have been issued from FUNBIO and the Brazilian government's counsel on the grant agreement, on the implementation agreement, and on the cooperation agreements with FUNAI and INCRA.

2. Conditions of Disbursement

Funds can only be disbursed into the trust fund (FAP) after:

a. Asset manager contract has been entered between FUNBIO and the Asset Manager; and
b. Proof of matching funds have been provided to the Bank (1 GEF: 1 matching).

3. Special Events of Default

a. The Bank would be authorized to suspend disbursement if the KfW Grant Agreement has not been signed 18 months after effectiveness.
b. If any of the implementation/cooperation agreements are not complied with.

H: Readiness for implementation

☐ 1. a) the engineering design documents for the first year's activities are complete and ready for the start of project implementation.
☒ 1. b) Not applicable.

☒ 2. The procurement documents for the first year's activities are complete and ready for the start of project implementation.

☒ 3. The Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality.

☐ 4. The following items are lacking and are discussed under grant conditions (section G).

I: Compliance with Bank Policies

☒ 1. This project complies with all applicable Bank policies.

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

Adriana Moreira and Claudia Sobrevila	John Redwood	Vinod Thomas
Team Leaders	**Sector Manager/Director**	**Country Manager/Director**

ANNEX 1
PROJECT DESIGN SUMMARY

Table 1.1 Project Design Summary

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
Sector Related CAS Goal Effective protection and management of rainforest and other PAs.	**Sector Indicators** ▪ Species-rich areas under effective protection ▪ Representative samples of ecosystems protected	**Sector/Country Reports** ▪ Occasional Bank reports on the environmental sector ▪ Relevant project supervisory reports	**(from Goal to Bank Mission)** Environmental issues continue to be a priority for GOB. Broad-based constituency for rainforest conservation continues to grow.
Project Purpose Expand and consolidate a system of PAs in the Brazilian Amazon to sustain biodiversity conservation.	**Indicative End-of-Program Indicators (by 2012)** ▪ 50 million hectares of PAs[1] in the Brazilian Amazon by 2012 ▪ Funding mechanism for recurrent costs of PAs fully operational	**Program Reports** ▪ Independent evaluations ▪ Annual reports on PAs monitoring systems ▪ Project implementation completion and evaluation reports	**(from Project Purpose to Goal)** Government development policies (PPA) integrate conservation issues. Continued support for the decentralization of environmental management.
Phase 1 (this project) Creation of 18 million hectares in new PAs (9 million hectares of "strict protection" PAs and 9 million hectares of "sustainable use" PAs); consolidation of 7 million hectares of existing "strict protection" PAs, and establishment of an endowment fund for PAs.	**End-of-project indicators (by 2006)** ▪ At least 70 percent of newly created PAs are established and protected by 2006 ▪ At least 70 percent of already existing PAs are consolidated and effectively protected by 2006 ▪ Forest cover of project PAs remains stable ▪ Endowment Fund established and operational by 2006	**Project Reports** ▪ Independent evaluations ▪ Annual reports on protected areas monitoring systems ▪ Project implementation completion and evaluation reports ▪ Published Decrees in the Official Gazette ▪ Disbursement and financial reports ▪ Biodiversity monitoring, GIS surveys, reports, and maps ▪ FUNBIO and Endowment Fund Board Reports	**(from Project Purpose to Goal)** The federal, state, and municipal governments' commitment to acquired compromises is stable. Broad based constituency for rainforest conservation continues to grow.

[1] The categories included in this definition of Protected Areas (PAs) are: (i) "strict protection" – Parks, Biological Reserves, and Ecological Stations; (ii) "sustainable use" – Extractive Reserves, Sustainable Development Reserves. At the end of 2012, 41 million hectares of strictly protected areas will have been established.

Outputs by component (Phase 1)	Output indicators (Phase 1)	Project reports	(from Outputs to Objectives)
COMPONENT 1			
Creation of new PAs	1.1 Analysis of 23 ecoregions completed and permanent definition mechanism/team established and functioning 1.2. Decrees drafted, approved, and published in the Official Gazette 1.3. Demarcation, land regularization, public posting, and minimum infrastructure for surveillance of PAs completed	▪ Environmental assessment reports ▪ Popular consultation reports ▪ Land registration reports ▪ Criteria applied to selected areas ▪ Maps and diagnostics reports ▪ Published Decrees in the Official Gazette	Political commitment by federal, state, and municipal government continues. GOB is committed to the creation of new areas. Local communities interested in participating in the process.
COMPONENT 2			
Consolidation of PAs	2.1. Management Plans for new and existing PAs prepared on a priority basis and being implemented; minimum infrastructure and equipment in place 2.2 PAs Management Councils operating for new and existing areas 2.3. Partnership and/or concession agreements with civil society being implemented in PAs 2.4. Community development plans and projects prepared and financed in new and existing PAs.	▪ Management Plans ▪ Local population and grassroots organizations reports and surveys ▪ Case studies about community participation ▪ State and municipal proposals submitted for approval for participation in the project ▪ Minutes of meetings with communities ▪ Partnership and/or concession agreements ▪ Disbursement and financial reports ▪ Biodiversity monitoring reports and maps ▪ Audits	Adequate Conversion Units (UC) staffing, budget, and equipment to implement management plans. Land use conflict decreases as a result of active negotiations and the availability of conflict-solving plans for land tenure and land use conflicts. There is response from the states and the municipalities to the Project. Interested local communities to develop community development plans.
COMPONENT 3			
Establishment of an endowment fund and development of demonstration projects for other income-/revenue-	3.1 Capitalization of endowment fund reaching a minimum of US$ 27 million, by end of Phase 1.	▪ Financial sustainability plans ▪ FUNBIO and Endowment Fund Board reports ▪ Register of companies and entities interested in	New financing mechanisms are less bureaucratic and legally viable.

generating mechanisms for PAs. **COMPONENT 4** Establishment of a biodiversity Monitoring & Evaluation (M&E) system at PA and regional levels. **COMPONENT 5** Establishment of a Project Coordination Unit (PCU) and a monitoring & evaluation system for the project	3.2. Studies to identify innovative income-generation mechanisms completed and mechanisms defined in a strategy. 3.3. Design and implementation of demonstration projects, in partnership with civil society, to generate financial sustainability for PAs. 4.1. Study to design the biodiversity Monitoring & Evaluation system completed. Indicators for environmental monitoring identified and selected; and environmental monitoring in selected areas under implementation. 4.2. Information resulting from Monitoring & Evaluation supports decision making and is incorporated into planning and programming. Database and documents available. 5.1. Program Committee established and functional 5.2. Institutional structures established and functioning at federal, state, and municipal levels	participation, prepared ▪ Endowment fund donor reports ▪ Case studies on new financial mechanisms for sustainability ▪ Report on income-generating mechanisms ▪ Income-generating project documents and implementation agreements ▪ Audit reports ▪ Document with indicators selected and accepted by involved parties ▪ Semiannual progress and monitoring reports (evaluation in process) ▪ Reports on information dissemination results ▪ Database ▪ Biodiversity monitoring reports ▪ Board reports and minutes of meetings ▪ Financial reports ▪ Project monitoring reports ▪ Audit documents	Interest from private sector, local communities, and NGOs in participating. Stable, trained staff strengthens institutional capacity. GOB continues to support Monitoring & Evaluation of ecosystems and environmental conditions. Project-executing agencies IBAMA and partners prioritize information updating and incorporation of accurate, reliable data into planning and programming; and coordinate actions. Government resources annually allocated. Timely donor disbursements. PCU develops effective and result-oriented management approach.
Project Components	**Inputs (budget)**	**Project Reports**	**(from Component to Outputs)**
Component 1: Creation of New PAs	1. US$25.0 million	▪ Project supervisory reports ▪ Disbursement reports ▪ Evaluation reports	Participating institutions comply with agreements to collect and disclose data on a timely basis.

Component 2: Consolidation of PAs	2. US$23.1 million		
Component 3: Long-term Sustainability of PAs	3. US$24.5 million		
Component 4: Protected Area Monitoring	4. US$2.4 million		
Component 5: Project Coordination and Management	5. US$6.5 million		
TOTAL	US$81.5 million		

Table 1.2 Long-term Program Design and Triggers for Subsequent Financing

Project Phases	Phase 1 (2002–2005) *	Phase 2 (2006–2008)	Phase 3 (2009–2011)
Objectives	▪ Establish 18 million hectares of new PAs (9 million hectares of "strict protection" PAs and 9 million hectares of "sustainable use" PAs) in the Brazilian Amazon ▪ Consolidate 7 million hectares of existing PAs ▪ Establish an Endowment Fund and develop financial mechanisms to ensure sustainability of new and existing PAs ▪ Improve the quality and reliability of information in PAs by developing and testing an environmental monitoring and evaluation protocol	▪ Establish an additional minimum of 19.5 million hectares of new PAs in the Brazilian Amazon ▪ Consolidate 5.5 million hectares of existing "strict protection" PAs, 6 million hectares of new "strict protection" PAs created in Phase 1, and 9 million hectares of new "strict protection" PAs created in Phase 2 ▪ Consolidate and increase the Endowment Fund, and implement market based and cost recovery mechanisms to finance PAs ▪ Identify low environmental impact community-based income-generating activities in established PAs	▪ Consolidate an additional 10.5 million hectares of "strict protection" PAs created in Phase 2 ▪ Consolidate and increase the Endowment Fund for PAs ▪ Evaluate results from implementation of legal framework (SNUC) and financial mechanisms ▪ Consolidate lessons learned on legal, financial, and institutional sustainability of PA system
Expected Results	▪ 23 ecoregions in the Brazilian Amazon analyzed for identification of new PAs ▪ 18 million hectares of new PAs (9 million hectares of "strict protection" PAs and 9 million hectares of "sustainable use" PAs) created ▪ 7 million hectares of existing "strict protection" PAs and 3 million hectares of new "strict protection" PAs	▪ 19.5 million hectares of additional new PAs created ▪ 5.5 million hectares of existing PAs, 7.0 million hectares of PAs created in Phase 1, and 9.0 million hectares of PAs created in Phase 2, consolidated ▪ Continue capitalization of Endowment Fund, with a goal of estimated US$140 million by the end of Phase 2	▪ All PAs consolidated ▪ Continue capitalization of Endowment Fund, with a goal of estimated US$240 million by the end of Phase 3 ▪ Selected mechanisms and procedures for financial sustainability of PAs replicated ▪ Environmental monitoring implemented for all PAs ▪ Final Project

Project Phases	Phase 1 (2002–2005) *	Phase 2 (2006–2008)	Phase 3 (2009–2011)
	consolidated ▪ Endowment fund for financial sustainability of PAs created with a minimum capitalization of US$14 million, to support existing "strict protection" PAs ▪ Demonstration projects for financial sustainability of PAs implemented ▪ Methodology for environmental monitoring defined and implemented for specific PAs ▪ Program Committee and Project Coordination Unit created and operational	▪ Additional mechanisms and procedures for financial sustainability of PAs tested and operational ▪ Environmental monitoring implemented for specific PAs	evaluation completed
Steps to reach the subsequent financing phase (triggers)	▪ Creation of a minimum of 9 million hectares of new PAs ▪ Consolidation of 4 million hectares of existing "strict protection" PAs ▪ Endowment Fund established, capitalized, and meeting performance benchmarks	▪ Creation of a minimum additional of 9 million hectares of new "strict protection" PAs ▪ Consolidation of 10 million hectares of existing "strict protection" PAs ▪ Endowment Fund capitalized and meeting performance benchmarks	

ANNEX 2

DETAILED PROJECT DESCRIPTION

This Project is aimed at expanding and consolidating the system of Protected Areas in the Brazilian Amazon to sustain biodiversity conservation. For the purpose of this Project, the terms "protected areas" (PAs) and "protected areas" (UCs) include the following categories defined in Law number 9.985 (July 18, 2000) that established the National System of Protected Areas (SNUC): Parks, Biological Reserves, Ecological Stations, Extractive Reserves, and Sustainable Development Reserves. These five categories correspond to two general types of protected areas: (i) "strict protection" (Parks, Biological Reserves, and Ecological Stations); and (ii) "sustainable use"(Extractive Reserves and Sustainable Development Reserves). The SNUC law gives the detailed definition of each PA category and their regulation, including for state and municipal protected areas.

Component 1: Creation of New Protected Areas

This component will support the creation of new protected areas in priority areas of high biodiversity in the Brazilian Amazon biome. The selection of these priority areas was based on the PRONABIO Amazon workshop (Evaluation and Identification of Priority Actions for Conservation, Sustainable Use, and Benefit Sharing of the Brazilian Amazon Biodiversity; Macapá 1999), WWF–Brazil studies, and Block-B-supported analysis and consultations. The selection process is described in detail in Annex 13. The scientific community, grassroots organizations, indigenous peoples, social and environmental NGOs, and government institutions were actively involved in the PRONABIO workshop, and their concerns are reflected in the various workshop documents and maps. The priority areas, and their biodiversity and social importance, are described in Annex 13.

This component will target the creation of 18 million hectares of new protected areas in the five categories defined above (Parks, Biological Reserves, Ecological Stations, Extractive Reserves, and Sustainable Development Reserves) over the next four years. The total area corresponds to 9 million hectares of new "strict protection" PAs (Parks, Biological Reserves, and Ecological Stations), and 9 million hectares of new "sustainable use" PAs[1] (Extractive Reserves and Sustainable Development Reserves). The new protected areas of these five categories may be established at federal, state, and/or municipal levels. These targets will contribute to the overall long-term program goal of 28.5 million hectares of new "strict protection" protected areas in the Brazilian Amazon biome by the year 2012. The subsequent phases of the program (Phases 2 and 3, of three years duration each) will target the remaining 19.5 million hectares. The targets for all five categories of PA for Phases 2 and 3 will be defined at the end of Phase 1.

[1] Sustainable use protected areas have the goal of conserving biodiversity as well as supporting the communities living in them. These protected areas are regulated by management plans that include various use zones, some of which protect key environmental values of these areas, including, in particular, a "strict protection" zone. ARPA will support only surveillance and enforcement activities in the "sustainable use" protected areas to ensure ecological integrity and biodiversity conservation.

1.1 Ongoing process of prioritization.

The identification and prioritization of PAs to be further created and regularized under the project will be an ongoing process. There are 23 different ecoregions in the Brazilian Amazon biome that cover an area of 410 million hectares (4,105 km²). During the 10-year program, new scientific, social-economic, and land-use knowledge will provide new information bearing upon PA creation. Under this subcomponent, the project will provide support for collecting and consolidating information from a variety of databases (IBGE, RADAM Brazil, State Zoning Projects, ISA, CI, WWF, among others), with constant update and review of the selected methodology for identification of new protected areas. The identification team also would provide an independent assessment of where to create new areas, and ensure that new proposed areas follow the highest biodiversity priorities, ecosystem representativity, and sustainable-use potential, ensuring the application of appropriate environmental and social standards in the selection process.

The activities in this subcomponent will encompass, among others, the following:

a. Collecting information from different sources such as IBGE, RADAM Brazil, state Ecological and Economic Zoning (ZEE) projects, ISA, CI, and WWF, keeping them updated in a project database
b. Prioritizing ecoregions and carrying out an ongoing representativity analysis as new information becomes available
c. Analyzing the biological importance and ecosystems representativity of new areas for conservation identified by the state ZEEs
d. Recommending new areas to be created according to the following scheme–(i) Priority 1: areas recommended by PRONABIO and the ZEEs; (ii) Priority 2: areas recommended by PRONABIO, but not identified in the ZEEs; (iii) Priority 3: areas identified by the complementary representativity analyses and by ZEEs; (iv) Priority 4: areas recommended by the complementary representativity analyses
e. Designing mosaics of protected areas to ensure ecosystem function and maintenance
f. Promoting consultation with states and municipalities
g. Incorporating the results of consultation with local and indigenous organizations, anthropological reports, and inputs resulting from the participation of local people in the proposed polygons
h. Sending regularly to the Program Committee lists of proposed new areas
i. Evaluating the effectiveness of the methodology and incorporating changes to improve it

1.2 Identification of new PAs.

This subcomponent will support the necessary studies for the technical preparation of proposals for the creation of new PAs. The SNUC law establishes that "the creation of a unit of conservation should be preceded by technical studies and by public consultation that will enable the identification of the localization, dimension and the appropriate limits for the units." The activities under this subcomponent will encompass all the steps necessary for the preparation of the draft "protected areas creation decrees" (*decretos de criação*) following the steps defined in SNUC. (See Annexes 13 and 15 for the methodology and consultation process.) The areas identified will be subjected to review by the Scientific Advisory Panel (PCA) described under the institutional arrangements (Section C.4) in order to certify for their biodiversity importance.

The following measures will be undertaken for the creation of new PAs, before the legal approval and decree publication in the Official Gazette:

PAs of Strict Protection

a. Completion of preliminary participatory environmental and social assessments, with involvement of local government and civil society (social movements, NGOs, and private sector)
b. Extended local consultation and agreement with state governments and/or municipalities
c. Completion of cadastral surveys, mapping, topographic surveys, and financial assessments
d. Analysis and definition of administrative categories, delimitation and control of PAs
e. Consultation with FUNAI in respect to the existence of isolated indigenous groups in the area and in the surroundings
f. Consultation with INCRA regarding the land tenure situation of the area
g. Elaboration of plans for the solution of land tenure issues, agreements of concession, acquisition of lands, reimbursement of *benfeitorias*, and elaboration of resettlement plans
h. Elaboration of the minutes of the decree for the creation of the PAs
i. Letter from FUNAI certifying no overlap with indigenous lands
j. Preparation of draft decrees for PA creation

Protected Areas of Sustainable Use

a. Consultation with the local social organizations
b. Digitalization of cartographic base
c. Participatory social and environmental assessment
d. Mobilization and sensitization of the inhabitants as to its territory and culture
e. Diagnostic of the land tenure situation
f. Elaboration of the minutes of the decrees for the creation of the PAs

1.3 Establishment of new PAs.

The Project will undertake a series of actions to complete the on-the-ground establishment of a new PAs zone and to integrate it into the regional PAs system. A set of subactivities, similar to those defined for Component 2, will be designed to further support the process of establishing and consolidating new PAs. These will include:

a. Implementation strategies to resolve land tenure conflicts
b. Negotiation of agreements with third parties (private-sector organizations) for the establishment and management of new PAs (as in Component 2)
c. Where appropriate, contingency plans for land acquisition, compensation, and resettlement when necessary
d. Elaboration and implementation of PA basic protection plans for "sustainable use reserves", management plans would be supported following guidelines spelled out in the Operational Manual.
e. Construction of infrastructure and acquisition of equipment
f. Training and rural extension activities

The Project will ensure that state and municipal governments participate in the different stages of the selection, establishment, and management of new PAs. This will include decentralized activities such as:

a. Participation in the consultation and technical process for the selection and establishment of new PAs
b. Participation in the different activities of the technical and scientific studies
c. Direct execution of the activities involved in the establishment and consolidation of PAs, including the allocation of resources to selected states and unicipalities
d. Signing of agreements between MMA/IBAMA and private-sector organizations for the establishment and management of new PAs
e. Participation in the design, development, and implementation of community-development plans and projects based on sustainable management of natural resources at state and municipal levels to benefit communities in and around PAs
f. Design and implementation of environmental monitoring and evaluation systems targeting PAs at state and municipal levels, and to evaluate the Project's outputs

Protected areas in this component will be considered *created* once they have met the following two sets of benchmarks, one for the legal creation of the area, and the other for the establishment of basic management capacity:

Legal creation

- Preliminary environmental and social assessment conducted
- Social communication and public consultation conducted
- Decision on PA boundaries and management category made
- Land registry and economic assessment of properties prepared
- Land acquisition plan prepared
- Creation decree drafted

Establishment of minimum capacity

- PA provisional coordination/administration team in place
- Land acquisition plan implemented
- Population plan prepared and implemented
- PA demarcated
- Patrolling and territorial control schemes functioning

1.4 Outputs.

The component outputs include:

a. Creation of 18 million hectares of new protected areas (9 million hectares of "strict protection" PAs and 9 million hectares of "sustainable use" PAs)
b. Development of 14 basic protection plans for new PAs
c. Backup studies and analyses (documents), including polygon maps, rapid biological assessment, and others
d. Completion of on-the-ground establishment activities for 10 PAs including basic infrastructure, equipment, staffing, and demarcation

e. Completion of on-the-ground establishment activities for at least 10 PAs of strict protection, including land regularization, basic infrastructure, equipment, staff, and demarcation

Component 2: Consolidation of Protected Areas

The main objective of this component would be to promote the implementation of existing and recently created PAs and their buffer zones in the Amazon region. This component will support activities in a minimum of 15 new "strict protection" PAs (approximately 9 million hectares) and 12 existing "strict protection" PAs (6.7 million hectares). The criteria for selection of these PAs include the following:

a. Lack of conflicts with indigenous lands or communities
b. Land tenure situation resolved or favorable for resolution
c. Potential for success—logistical feasibility of implementation during the time horizon of Phase 1
d. Local institutional capacity and presence of NGOs—existence of interinstitutional conditions or other externalities that make the consolidation effort effective
e. High conservation value—strong potential for synergy in the preservation of other areas of restrictive use

A detailed description of the 12 existing "strict protection" PAs selected is presented Annex 14. New and existing PAs in this component will be considered *consolidated* once they have met the following benchmarks:

a. PA physical limits defined and demarcated
b. Private property assessment conducted
c. Provisional protection plan functioning
d. PAs Management Council established
e. Preparation of management plan
f. Critical management plan subprograms implemented
g. Management plan for environmental monitoring
h. Buffer zone control
i. Protection plan
j. Administration and maintenance
k. Staffing plan
l. Infrastructure and equipment
m. Institutional cooperation
n. PA financial sustainability assessed

2.1 Demarcation and land regularization of existing PAs.

This subcomponent will support activities necessary for demarcation and land regularization of the 12 existing "strict protection" PAs. It will finance land tenure assessments, including activities on baseline land registry surveys, ground surveys, private property infrastructure surveys, and mapping. Demarcation activities to establish the PA perimeter will be financed where necessary in order to achieve total demarcation for the 12 existing "strict protection" PAs by end of project. A detailed land acquisition plan will be prepared, and government funds will be used to finance land purchase where needed. This subcomponent also will finance workshops/seminars on PA conflict resolution related to boundary establishment.

2.2 Basic protection.

This subcomponent is designed to provide support for operation of the PAs while the management plans are being prepared. Under this subcomponent, the PAs (existing and new) will be outfitted with basic infrastructure, equipment, and core staff to secure basic services of protection and community outreach before the preparation and implementation of management plans. The government will provide a minimum of five staff per "strict protection" PA (one manager, one technical assistant, and three rangers), and will support the Reserve Associations for the "sustainable use" PAs. The Project will provide funding for small civil works, emergency communication and patrolling equipment, and basic training.

2.3 Management planning.

This subcomponent will support activities related to the elaboration and implementation of a total of 21 management plans for new and existing PAs. The management plans would include the long-term mission for the protected areas, where the fundamental philosophical approach is articulated and agreed upon. The experience and lessons learned from the National Environmental Program Project (NEP I) in regard to PAs management and the development of management plans will be incorporated into this exercise. The management plans would serve as the master tool for planning and programming PAs management, and also would serve as instruments to validate PA categorization, boundaries, and for identifying possible land use conflicts. Local communities and civil society will participate in the preparation of the management plans, through mechanisms described in subcomponent 2.4. The management plans will take into account elements such as socioeconomic conditions, anthropology, archaeology, landscape, environmental education, tourism potential, and land ownership. The management plans also would include as an objective the implementation of mechanisms to incorporate data from existing biodiversity monitoring systems to support planning and programming.

IBAMA would be responsible for the preparation of management plans for the federal PAs and will conduct the activities either directly or through contracts with selected organizations, including NGOs, academic institutions, and others. At state and municipal levels, the environmental agencies will follow the same procedures. The plans would be adjusted periodically (every five years) as the need arises, using additional information from MMA/IBAMA Remote Sensing Center/SIMBIO, scientific institutions, and NGOs with experience in biological diversity.

Under this subcomponent, priority would be given to the implementation of the following key areas of IBAMA's management plan guidelines (*subprogramas*): (a) environmental monitoring; (b) buffer zone management and control; (c) protection; (d) administration and maintenance; (e) infrastructure and equipment; (f) staff; and (g) institutional cooperation.

Implementation of management plans will make full use of the considerable capacity of Brazilian CBOs, NGOs, scientific and academic institutions, and the civil society in conservation. Civil society expertise will be especially important in the areas such as PAs management planning, natural resources management, rural development, community organization, technology transfer, monitoring and evaluation, and environmental education. This collaboration would be operationalized through partnership and concession agreements to increase the number of qualified stakeholders and to facilitate effective participatory management.

2.4 Community participation.

Long-term sustainability of PAs depends heavily on the participation and effective involvement of local communities and civil society. Local communities have a unique and mutual relationship with protected areas. The Project is aimed at increasing local participation, within levels compatible with biodiversity conservation. This subcomponent will support community participation for the establishment and consolidation of PAs. The activities will include the establishment and/or operation of PAs Management Councils, partnerships with NGOs for PAs management, and community subprojects, among others. The eligibility criteria for the subprojects would be spelled out in the Operational Manual.

Protected Areas Management Councils (*Conselho da Unidade Conservação*), as defined in article 29 of the SNUC law, is the basic mechanism for community participation in PAs management. The Councils will include representatives from local community organizations, local governments, and NGOs. Existing Councils would be strengthened by training and by the provision of improved meeting facilities and resources to support regular activities. The Councils will provide advice to the management authority of the PA. Work plans and programs will be developed by Councils at the PA level and under the guidance of the PA approved management plan. The establishment and development of participatory PAs management also will serve as an instrument to promote an active participation of women in the process.

Specific activities that will ensure enhanced local participation include: (a) planning and programming control and protection with participation of stakeholders and local population; (b) enhancing research activities, and developing links between research and small economic activities at the community level; (c) conducting workshops and seminars to increase information dissemination and exchange; and (d) sponsoring environmental education and public relations campaigns that target the PAs and their buffer zones.

2.5 Training.

Under this activity, the Project will diagnose *in situ* managerial systems for PAs including administrative and financial management, and will develop and implement programs to improve performance. The Project would provide technical assistance to assess existing PAs management mechanisms and develop a managerial review system to support decision making, and to improve planning, programming, monitoring, evaluation, and reporting at PA and central levels. The management system also would include a mechanism to ensure appropriate information flow between IBAMA, different stakeholders, and civil society. This component also will fund training of staff and partners involved in PAs management by developing training packages to cover the following areas:

a. PAs management (participatory planning and programming)
b. Conflict management and resolution
c. Public information management
d. Participatory monitoring & evaluation
e. Gender and ethnicity
f. Fund raising
g. Accounting
h. Transparency, accountability, and reporting

The Project will develop the appropriate indicators to ensure a balanced participation of various social groups and stakeholders, as well as men and women in training events.

2.6 Outputs.

The component outputs include:

a. Nine approved PA management plans under implementation
b. 11 management plans under elaboration
c. 12 federal "strict protection" PAs and three state/municipal "strict protection" PAs with basic infrastructure completed and equipped
d. A management review system in place at IBAMA and at target PAs
e. PA partnerships and/or concession agreements signed and under implementation
f. Increased and tangible interinstitutional coordination and community participation at the PA level through a strong buffer zone management program
g. Improved interinstitutional coordination and demonstration of participation from the communities around the PA

Component 3: Long-term Sustainability of Protected Areas

The objective of this component is to establish mechanisms for the long-term sustainability of PAs consolidated under ARPA. This component would lay the basis for long-term financial sustainability by identifying and implementing appropriate financial mechanisms and institutional capacity to ensure proper post-consolidation PAs management. Under the current shortage of resources to manage the existing PAs, it is unlikely that the government will have sufficient resources to properly address the long-term needs of the PAs created and consolidated under ARPA. Consequently, this component is critical to lay the basis for long-term financial sustainability of PAs, considering a realistic scenario where financing by the GEF and other donors will progressively decrease. The component design encompasses the establishment of an endowment fund for the PA system in the Amazon region, FAP, and the preparation of studies and subprojects aimed at defining and testing appropriate revenue-generating mechanisms for PA sustainability. The Brazilian Biodiversity Fund, FUNBIO,[2] will be responsible for the implementation of this component and the administration of FAP, during Phase 1 of the program.

3.1. Protected areas endowment fund (FAP).

This subcomponent will support the establishment and initial operation of a protected areas endowment fund for the Amazon region (FAP–*Fundo de Areas Protegidas*) to be created and managed as a subaccount within FUNBIO. The Fund will be established as an endowment, providing long-term sustainable support to finance core costs of Amazon PAs.

The main activities under this subcomponent are: (a) creation of an administrative, financial, and legal structure (administrative and office team-support that enables FUNBIO to assume the additional responsibilities of technical, administrative, and financial supervision for the operation

[2] FUNBIO was established in 1996 under the GEF Pilot Phase (US$20 million grant from GEF, US$10 million from other domestic and international partners). FUNBIO was designed and is operating under the best practices stated in the GEF's Evaluation of Experiences with Conservation Trust Funds (1998). FUNBIO involves an innovative arrangement whereby release of GEF capital for the endowment is tied to mobilization of matching funds mainly from the private sector. FUNBIO has an independent governing Board that seeks to assure both representativity and transparency in its activities.

of FAP); (b) support of recurrent costs of existing PAs; and (c) developing a fundraising strategy for capitalization of FAP.

A detailed description of FAP operation and finance is presented in Annex 12. The norms to regulate the operations, finances, administration, and procedures of FAP, and regulations for the partnership between IBAMA and the FAP administrator (FUNBIO), will be determined in a separate FAP Operational Manual with the following contents: (a) decision-making structure; (b) financial structure and asset manager; (c) mechanism to support PAs operational costs; (d) cost and financing; (e) disbursements, auditing, and reporting; and (f) monitoring and evaluation. The final preparation of the manual would be a condition effectiveness.

The selection of PAs to be eligible for funding from FAP investment income shall be made according to defined criteria and weights, including: (a) the existence of minimum infrastructure and staff; (b) the existence of management plans that are concluded or under preparation; (c) the GOB annual budget allocation; (d) the constitution of the Management Council(s); (e) the degree of threat (human pressure); and (f) accreditation in the National Register of PAs. The full set of criteria will be included in the FAP Operational Manual.

For Extractive and Sustainable Use PAs, the eligibility criteria include the following: (a) the existence of approved management plans; (b) the existence of Reserve Associations that are created and implemented; (c) an updated registry of inhabitants; (d) a Management Council installed and operational; (e) Commissions of environmental protection, health, and education constituted and in operation within the structure of the Associations; (f) registration in the National Conversation Units Registry; (g) POA prepared on the basis of the approved management plan; (h) a minimum forestry cover of 90 percent; (i) creation before December 2000 or after January 2001; and (j) located within the project area (*Poligonos*). The full set of criteria will be included in the FAP Operational Manual.

3.2 Studies and subprojects for PA-based revenue-generating activities.

This subcomponent will provide support to the selection and implementation studies and subprojects aimed at testing appropriate revenue-generating mechanisms for PA sustainability, and income-generating activities for communities in buffers zone areas. FUNBIO, together with IBAMA, will be responsible for developing studies of financial mechanisms for revenue generation in selected PAs and for the implementation and technical cooperation of 10 subprojects. The subprojects will seek to develop mechanisms for revenue generation (such as, ecotourism, services, and entrance fees) and for fiscal incentives. The preparation of subprojects will be preceded by a planning phase that should: (a) contemplate the *modus operandi* of the selected mechanisms; (b) review prior analyses of experiences implemented in Brazil or in others countries; (c) identify obstacles to successful implementation of these mechanisms; (d) develop strategies for overcoming those obstacles; (e) identify PAs with better potential for application of those mechanisms; (f) detail the operational and legal aspects for the implementation of pilot projects; and (g) define potential implementers, selection criteria, and contracting forms.

This plan will be prepared based on consultations with individuals and organizations experienced in the development of relevant activities and/or mechanisms of financing, and who can be involved by the Project. The consultations will include: (a) seeking information on the development of protocols for demands, methodology, and operational plans for inventorying the biodiversity in the PAs; (b) discussions with user groups to determine the level of demands and the possibility of investments for appropriate revenue-generating products and services, identified by inventories; and (c) informing the local and traditional populations about their rights related to

cultural and intellectual properties, aiming to prepare them to better negotiate these issues. The result of the consultation process also will serve to define models of co-ownership and to implement strategies and work plans.

Based on the plan, the Project Coordination Unit, together with IBAMA and FUNBIO, will seek proposals for subprojects from other governmental organizations, NGOs, and the private sector. The proposals would be reviewed by the Program Committee, which will utilize the following criteria for subproject proposals:

a. compatibility with the PA objectives
b. quality of the financial and technical proposal
c. relevance to the traditional populations and local communities
d. absence of negative environmental impacts
e. replicability of the model

This component foresees the achievement of partnerships between MMA/IBAMA and organizations from the civil society qualified for the implementation of the pilot projects. The criteria for NGO eligibility will include:

a. working in areas of high priority for biodiversity conservation, with broad reach, close to local communities
b. organizational capacity for the activities of conservation
c. experience in alternative activities that ensure sustainable use of resources
d. participatory approach with the communities living in the areas
e. absence of negative environmental impact

The selection of participating communities in the buffer zone subprojects would be done through a process that would involve PA Management Councils and the communities living in the areas. The criteria for selecting communities will include: (a) living near high-priority biodiversity areas of sufficient size within community boundaries; (b) organizational capacity for conservation activities; (c) community experience with alternative livelihood activities that contribute to sustainable resource use; (d) participation in networks of communities; and (e) with having no environmental impact. These criteria would be included in the Operational Manual. The component also would provide information and technical assistance to the selected communities to enable them to prepare project-related community preinvestment proposals and/or participatory community development plans.

3.3 Outputs.

The component main outputs include:

a. Make operational and capitalize a PA endowment
b. Implement an institutional arrangement with FUNBIO to administer the protected areas endowment fund (FAP)
c. Studies and subprojects for revenue generation implemented
d. Study for establishment of an endowment fund for "sustainable use" PAs completed
e. Cost-recovery strategy and program implemented for selected PAs
f. Five PA concession agreements finalized for the implementation of financial mechanisms
g. Improved legal framework supporting PA administrative and financial management

Component 4: Protected Area Monitoring

The objective of this component is to establish an environmental monitoring and evaluation system for PAs. This component will support the establishment of a biodiversity monitoring system and analysis for new and existing PAs that will be used to improve the decision-making process, as well as planning and programming, by making available more accurate and reliable information on the management effectiveness of the PAs. To this end, the project monitoring would include core biological variables plus selected variables, such as soil erosion and siltation from deforestation and road construction, urban growth, planned and unplanned settlements, overgrazing, and other community-based activities in and around PAs. In addition, the system also will monitor and measure the fulfillment of the project objectives.

4.1 Biodiversity monitoring system.

This subcomponent will support the activities for design and implementation of a biodiversity monitoring system for the new and existing PAs. The indicators for this monitoring system will be developed in coordination with IBAMA's existing biodiversity monitoring system, SIMBIO (*Sistema de Monitoramento de Biodiversidade*), currently in the final stages of preparation, and will be tested before applying it to ARPA. There are many advantages to this coordinated effort, since SIMBIO will be used to monitor biodiversity in all IBAMA-managed PAs in the country. The system will be developed in order to ensure that project information feeds into SIMBIO by using shared indicators (status, pressure, and response type). Data to be collected include: (a) biodiversity status (key indicator groups); (b) pressure on ecosystems (levels of threat); (c) water resources and climate; (d) insularization (levels of connectivity); and (e) management effectiveness.

During this phase, the monitoring system will target four existing PAs on a pilot basis, and will incorporate the newly created PAs as they are implemented (end of Phases 1, 2, and 3). Baseline data will be collected for all PAs. A risk analysis methodology developed by the World Commission on Protected Areas and by WWF will be applied. Each unit will be classified according to two levels of risk: Level 1—PAs under high human pressure and threat, resulting in higher biodiversity loss; Level 2—less vulnerable PAs experiencing lower human pressure, where other factors threaten biodiversity. The table below provides a list of the four selected PAs.

Table 2.1 Risk Levels of Selected Existing PAs

Risk level /Monitoring instruments	Protected Area	State
Level 1: ▪ Field monitoring ▪ Effectiveness indicators	Jau Biological Reserve (268,000 hectares)	Rondônia
	Lago Piratuba Biological Reserve (395,000 hectares)	Amapa
	Juami-Japurá Ecological Station (572,000 hectares)	Amazonas
Level 2: ▪ Remote sensing monitoring ▪ Effectiveness indicators	Serra do Divisor National Park (605,000 hectares)	Acre

The PAs selected for initial monitoring represent a variety of environments and logistical problems that will serve as a basis for increasing monitoring capacity for expansion of the system to newly created and other existing PAs.

Specific key activities under this subcomponent will include, among others:

a. Consolidation of the existing database of information regarding PAs in the Amazon biome
b. Validation of the classification/levels for PA monitoring
c. Development of indicators and methodology based on the best and tested cost effectiveness for PAs management
d. Collection, analysis, and consolidation of information to complete databases for the five selected PAs (for example, field work, remote sensing, secondary data gathering)
e. Development of a database for the PAs of the Amazon biome, including a mechanism for information exchange, to support PA planning, programming, and management

4.2 Training.

This subcomponent will support training activities for PA staff at ground level and central agencies (IBAMA and state environmental agencies) responsible for data collection and implementation of the biodiversity monitoring system. This subcomponent also will involve dissemination activities aimed at preparing local communities to access and provide information relevant to PA monitoring.

Specific key activities under this subcomponent will include, among others:

a. Elaboration of an Operational Manual to support the learning process of monitoring and evaluation of PAs, and detailing standard and special procedures, methodology, and outputs.
b. Elaboration of a public information strategy to target local, national, and international audiences. This strategy will include specific mechanisms to make information available via a Web site and through the use of traditional public information vehicles in order to reach local PA populations.

4.3 Outputs.

The component outputs include:

a. A monitoring and evaluation system at PA and regional levels, including complete implementation in five existing protected areas
b. Training methodology and manuals developed and applied

Component 5: Project Coordination and Management

This component would support the set up, staffing, and operational costs of the Project Coordination Unit within MMA. This unit would be responsible for the overall coordination of the various components, and would be specifically responsible for: (a) preparation of Annual Operating Plans; (b) preparation of supervisory reports or any request for information by donors or the Bank; (c) monitoring and evaluation of project activities; (d) assurance that subsidiary agreements and financial execution are effectively carried out; and (e) communication and dissemination activities of ARPA. In addition, this component will support the set up, staffing, and operational costs of PROARPA (the ARPA coordination unit within FUNBIO) responsible for procurement functions of the Project, disbursement and financial execution, creation and operation of FAP, and execution of certain studies and pilot activities under Component 3.

5.1 Operational Manual. Standard project implementation monitoring, based on the Project Design Summary, will be carried out throughout the project implementation period. An Operational Manual will be prepared before grant effectiveness that would include:

a. Project objectives
b. Description of the organizational structure
c. Funding sources
d. Eligible expenditures and detailed spending rules
e. Description of the funding approval cycle, eligibility of participating institutions, and institutional responsibilities
f. Operating procedures for disbursing funds to existing PAs or third party contractors
g. Guidelines to ensure that protection programs will follow good environmental practices and properly address any sensitive social issues
h. Procurement rules
i. Guidelines for contracting a financial agent
j. Auditing, financial recording, and reporting procedures
k. Guidelines on monitoring and evaluation of project activities.

Project administration also would finance the operating costs of the Program Committee (see Annex 11 – Institutional Arrangements).

5.2 Outputs.

The component main output includes:

a. A fully functional Project Coordination Unit (PCU) operating in accordance with the Project Operational Manual.

ANNEX 3

ESTIMATED PROJECT COSTS

Table 3.1 Estimated Project Costs by Component and Financier

Project Cost by Component	GOB (US$ million)	WWF (US$ million)	GEF (US$ million)	KfW (US$ million)	Other[1] (US$million)	TOTAL (US$ million)
1. Creation of New Protected Areas	10.3	6.6	1.8	2.4	0	21.1
2. Consolidation of Protected Areas	3.8	2.5	3.35	10.1	1.0	20.75
3. Long Term Sustainability of Protected Areas (without FAP)	0.9	0	3.1	0	0	4.0
Initial Endowment Capital (FAP)	0	5	14.5	0	1.5	21.0
4. Protected Area Monitoring	0	0	2.2	0	0	2.2
5. Project Coordination and Management	1.0	1.2	3.15	0.5	0	5.85
Physical contingencies	1.6	1.0	1.4	1.1	0	5.1
Price contingencies	0.5	0.2	0.5	0.3	0	1.5
TOTAL PROJECT COST	**18.1**	**16.5**	**30.0**	**14.4**	**2.5**	**81.5**

[1] 1.5 million from Brazil Connect
1 million from GTZ

Table 3.2 Detailed Financier per Subcomponent

1.	**Creation of New Protected Areas**				
1.1.	Ongoing process of prioritization	WWF			
1.2.	Identification of new areas	WWF			
1.3.	Establishment of new areas				
	a) For sustainable-use areas		KfW		GOB
	b) For strict protected areas	WWF			GOB
	c) Demarcation and operation costs			GEF	
2.	**Consolidation of Protected Areas**				
2.1	Demarcation of existing areas		KfW		GOB
2.2	Basic protection		KfW		GOB
2.3	Management planning		KfW		
2.4	Community participation			GEF	
2.5	Training		KfW		
3.	**Long-term Sustainability of Protected Areas**				
3.1	Protected areas endowment fund (FAP)			GEF	GOB
3.2	Studies and subprojects in buffer zones			GEF	
4.	**Protected Areas Monitoring**			GEF	
5.	**Project Coordination and Management**	WWF	KfW	GEF	GOB

ANNEX 4

INCREMENTAL COST ANALYSIS

The general objective of the GEF project (alternative) is to support biodiversity conservation and its sustainable use in the Amazon through the creation and consolidation of new and existing protected areas under participatory management by federal, state, and municipal governments, NGOs, and other private sector institutions. The Project intends to achieve these outputs at a total incremental cost of approximately US$30 million.

1. Context and Broad Development Goals

The goals of the Amazon Region Protected Areas Project are to increase protected areas (PAs) in the Brazilian Amazon and to consolidate the management of these areas. To date, Brazil has approximately 12 million hectares of tropical forest under strict protection in the Amazon region. The Project would incorporate an additional 25 million hectares to reach the goal of 37 million hectares under strict protection in the next 10 years. It also will create 9 million hectares of "sustainable use" PAs. Project objectives of the first phase include: (a) creation of 18 million hectares in new PAs (9 million hectares of "strict protection" PAs and 9 million hectares of "sustainable use" PAs); (b) consolidation of 7 million hectares of existing "strict protection" PAs; (c) establishment of long-term financial mechanisms for PAs; (d) establishment of a biodiversity monitoring and evaluation system at PA and regional levels; and (e) strengthening project coordination and management.

2. Baseline

In the Amazon region, the expansion of the system of protected areas is constrained by the lack of financial resources. Despite this, the government of Brazil is making progress based on a program of grant and loans, including international cooperation, that is the main source of funding to conserve the Brazilian Rain Forests. Two states in the Amazon (Rondônia and Mato Grosso) borrowed funds for a natural resources project that included a protected areas component. These loans are in their final lending stage, and it is unlikely that future loans of this nature will be undertaken by states. Two other projects from the PPG7 are involved in the initial stages of planning and identifying new areas for conservation: the Ecological Corridors Program and the Natural Resources Policy Project.

2.1 Creation and establishment of new PAs. Under the Baseline Scenario, the Brazilian government, with limited support from the PPG7 Biodiversity Corridors Program (US$5 million) and the Natural Resources Policy Project (US$22 million), will facilitate the identification of new PAs. However, this process will not necessarily lead to the creation of new PAs. Under the Baseline Scenario, the government may invest resources in the public consultation and planning processes to involve state and municipal governments, local NGOs, and indigenous organizations in the creation of new PAs. However, this consultation and planning, is likely to be limited by scarce resources.

2.2 Consolidation of existing PAs. The government aims to consolidate 12 priority PAs in the Amazon region. The operating costs for these areas (including investments and recurrent costs) have been established at approximately US$200 thousand per year for strict protected areas and US$50 thousand for sustainable use areas. Considering that these PAs are remote, difficult to

access, and under no major threat, the current level of spending in most of these PAs in the last five years varies from area to area. For instance, considering funds allocated by the Brazilian government and the first World Bank loan on the environment (NEP I) during 1995 to 1999, most of these areas are receiving less than 20 percent per year of their estimated yearly operating costs. Since these spending levels are unlikely to be substantially increased under the Baseline Scenario, the Brazilian government will continue to consolidate PAs with the only additional support coming from the PPG7 Ecologial Corridors Program (US$3.8 million). The consolidation of fewer PAs will therefore be achieved at a slower rate and in a considerably longer period of time.

2.3 Financial sustainability of PAs. Under the Baseline Scenario, the development of innovative income-generation mechanisms for the financial sustainability of PAs (including a dedicated endowment fund) will be limited. None of the current initiatives, such as PPG7, NEP II, and government-funded programs, include long-term financing mechanisms for protected areas. Under the Baseline Scenario, already existing financial instruments, such as tourism entrance fees and environmental compensation, might develop in a few PAs. However, additional income-generating activities based on international experiences, would probably not take place. In addition, the establishment of a protected areas endowment fund with seed capital from GEF, making it attractive to bilateral donors, private foundations, and debt for nature swaps and related instruments, is unlikely to occur.

2.4 Biodiversity monitoring and evaluation. IBAMA with continue to collaborate with SIMBIO (IBAMA's Biodiversity Monitoring System) and RADAM-Brazil. In the absence of a dedicated biodiversity monitoring system and limited financial resources, the development of regional indicators for biodiversity conservation and threats to PAs in the Amazon region will require a longer period of time to achieve. In addition, the international protocols for monitoring protected areas being developed by IUCN and WWF (which also are being incorporated into the ARPA project design), would not be implemented in Brazil and benefit from being tested worldwide.

The Baseline Scenario would therefore generate limited short-term gains in terms of biodiversity conservation, but would not constitute a concerted effort to mainstream conservation actions and resources for PAs in the Amazon region, focusing on long-term social and financial sustainability. The cost of the activities under the Baseline Scenario is estimated at US$51.5 million.

3. Global Environmental Objectives

The Brazilian Amazon region is the core area of the largest continuous tropical moist forest on the planet, comprising 40 percent of all remaining tropical moist forests in the world. The Amazon region is the most important repository of biological diversity on earth, containing extremely rich biodiversity in terms of unique species, high levels of endemism, and habitat diversity. Many areas in the Brazilian Amazon hold world records in terms of biodiversity richness. The Project would, in the next four years, support the addition of 10 million hectares of new protected areas in the Brazilian Amazon; and would support a more participatory management approach and the establishment of innovative financial mechanisms as a strategy to ensure long-term social and financial sustainability.

4. ARPA GEF Alternative

Conservation in the Brazilian Amazon region requires a functional and structured system of protected areas. Expansion and consolidation of the protected area coverage is essential to

maximize the opportunities for achieving long-term sustainable biodiversity conservation and protected areas management in the region.

Under the ARPA GEF Alternative, the support from GEF during Phase 1 will enable the Brazilian government to support: (a) the creation and establishment of a total of 9 million hectares of "strict conservation use" PAs and 9 million hectares of "sustainable use"[1] PAs through an intensive consultative process at the local level; (b) the consolidation of 12 existing PAs selected through a participatory process; (c) the establishment of a broad base of innovative financial mechanisms and a dedicated endowment fund; and (d) the improvement of environmental monitoring and evaluation mechanisms to measure the management effectiveness of PAs. Other key gains enabled by the GEF support would include:

- Partnerships to leverage GEF financing, to further ensure the generation of global benefits.
- Enhancement of the decentralization process through participation in PAs management by the state and municipal governments, with a view to long-term PA accountability at the local level.
- Coordination mechanisms to mainstream lessons and actions (Project Coordination Unit); and financial resources (endowment fund) from the government of Brazil and from multilateral, bilateral, and private donors, to support PAs in the Amazon region. These mechanisms will enable the progressive decrease of GEF support throughout the 10-year program.
- An integrated approach for PAs management that responds to social, economic, and political realities and a regional long-term vision of the system for PAs in the Amazon.
- Amazon ecoregional representation within the SNUC, and greater coverage of globally significant areas.
- Definition of long-term management needs, management plans, and agreements to share PAs management responsibility with private sector organizations.
- Pilot projects based on sustainable use of biodiversity to provide economic incentives for conservation.

The GEF Alternative would therefore generate medium- and long-term gains in terms of biodiversity conservation, and would facilitate the efforts to mainstream PAs conservation actions and resources in the Amazon region, focusing on long-term social and financial sustainability. The total cost of the GEF alternative is US$81.5 million.

5. Incremental Costs

The difference between the cost of the Baseline Scenario (US$51.5 million) and the cost of the GEF Alternative (US$81.5 million) is estimated at US$30 million. This represents the incremental cost for achieving global environmental benefits, and is the amount requested from the GEF. The following matrix summarizes the incremental costs and benefits.

[1] Sustainable-use protected areas have the goal of conserving biodiversity as well as supporting the communities living in them. These protected areas are regulated by management plans that include various use zones, some of which protect key environmental values of these areas, including, in particular, a "strict protection" zone. ARPA will support only surveillance and enforcement activities in the "sustainable use" protected areas to ensure ecological integrity and biodiversity conservation.

Table 4.1 Incremental Cost Matrix for GEF Funding

Component	Cost Category	Cost US$ Million	Domestic Benefit(s)	Global Benefit(s)
1. Creation and Establishment of New Protected Areas	Baseline	22.8	▪ Few protected areas (PAs) created and PA coverage is slowly enhanced ▪ Partial biome conservation needs-assessment, based on social, economic, and political reality. ▪ Planning and management instruments (e.g., PAs Management Plans) available for the management of few PAs in the Amazon region ▪ Few PAs established (infrastructure, staff, and demarcation) and managed with participation of state and local governments, NGOs, and community organization ▪ PAs management is being achieved with some degree of decentralization	Few protected areas of global-conservation importance created and managed. Relative conservation of the Amazon ecosystems.
	GEF Alternative	25.0	▪ 18 million hectares of PAs created ▪ PA regional coverage responds to a comprehensive biome conservation needs-assessment based on social, economic, and political reality ▪ Management instruments developed (e.g., PAs Management Plans) ▪ Strengthening of the system of protected areas of the Amazon biome through the establishment of new PAs, with different management categories at three governmental levels (federal, state, and municipal)	Larger priority area for conservation in the Amazon biome created and managed according to biodiversity importance and socioeconomic criteria. Expansion of Amazon biome biodiversity protection through the creation of 18 million hectares in new PAs.
	Incremental	2.2		
2. Consolidation of Existing Selected Protected Areas	Baseline	18.5	▪ Few priority areas consolidated ▪ Slow improvement of the capacity and conditions for the management of PAs, with occasional participation of state and municipal governments, local communities, NGOs, and other private sector institutions	The process of consolidation of PAs of global importance advances at a slow pace.
	GEF Alternative	23.1	▪ Priority PAs are consolidated ▪ Strengthening of the system of PAs, including improved infrastructure, equipment, trained staff, and enhanced systematic participation of state and municipal governments, local communities, and local organizations in priority selected PAs	12 PAs consolidated in accordance with the conservation objectives for the biodiversity of the Amazon biome.
	Incremental	4.6		

Component	Cost Category	Cost US$ Million	Domestic Benefit(s)	Global Benefit(s)
3 Financial Sustainability of Protected Areas	Baseline	7 2	▪ Limited short- and long-term financial sustainability of most PAs ▪ Low sustainability of protection, conservation, research, and education activities in PAs. ▪ Consolidation of principles and guidelines for PAs management. ▪ Limited resource mobilization for PAs management and conflictive environment resulting from legal inconsistencies and gaps.	None
	GEF Alternative	24.5	▪ Development and establishment of prompt, permanent, and efficient financial mechanisms for the sustainability of PAs. ▪ Establishment of an endowment fund for protected areas that attracts private and bilateral donors, and increases capitalization	Ensured protection for the Amazon biodiversity through sustainable availability of resources and operative legal framework for the management of PAs of global importance.
	Incremental	17 3		
4. Environmental Monitoring and Evaluation	Baseline	0	• Limited capacity of monitoring and evaluation systems at Federal level	None
	GEF Alternative	2.4	▪ Establishment of a permanent integrated M&E system for the conservation activities in PAs in the Amazon region ▪ Availability of updated, accurate, and reliable information to support decision making, planning, and programming of PAs management in the Amazon region	Availability of updated reliable information; and improved understanding of the situation and the impact of biodiversity conservation activities and management of PAs with global importance.
	Incremental	2.4		
5 Project Coordination and Management	Baseline	3.0	None	None
	GEF Alternative	6.5	▪ Establishment of updated and efficient management mechanisms to ensure appropriate project coordination and management	Project goals achievement; and opportunities for the enhancement of Project results, and viability of project replication in other areas of global biodiversity importance.
	Incremental	3.5		

Component	Cost Category	Cost US$ Million	Domestic Benefit(s)	Global Benefit(s)
TOTAL	Baseline	51.5	▪ Limited biodiversity protection and management capacity for PAs management in the Amazon region	Limited results regarding the protection of biodiversity of global importance, in the short term.
	GEF Alternative	81.5	▪ Expansion and consolidation of PAs of the Amazon biome through medium- and long-term planning, with support of sustainable financial mechanisms for PAs ▪ Development of capacity for partnership-based PAs management	Ensured conservation of the biodiversity of the Brazilian Amazon biome through the consolidation of 10 million hectares of PAs within a system of global importance.
	Incremental	30.0		

ANNEX 5

FINANCIAL SUMMARY

Table 5.1 Total Financing Required ($US millions)

	Implementation Period				
Project Cost	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Total**
Investment Cost	$ 14,5	$ 9,5	$ 12,7	$ 12.3	$ 49.0
Recurrent Cost	$ 0.8	$ 0.8	$ 0.9	$ 1,9	$ 4.4
Unallocated	$ 1,9	$ 1,3	$ 1,4	$ 1,5	$ 6.1
Total Project Cost without Endowment Fund	$ 17,2	$ 11,6	$ 15.0	$ 15.7	$ 59.5
Endowment Fund Capitalization	$ 4.8	$ 8.4	$ 5.5	$ 2.3	$ 21.0
Total Project Cost with Endowment Fund	$ 22.0	$ 20.0	$ 20.5	$ 18.0	$ 81.5
Financing					
GEF Non-endowment Fund	$ 4,7	$ 3,7	$ 3,5	$ 3,2	$ 15,5
GEF Endowment Fund Capitalization	$ 4,8	$ 8,4	$ 5,5	$ 2,3	$ 21.0
GTZ Technical Assistance	$ 0	$ 0	$ 0	$ 1	$ 1.0
WWF Non-endowment Fund	$ 2,8	$ 2,5	$ 2,8	$ 3,1	$ 11,5
PPG7/KfW Non-endowment Fund	$ 3,0	$ 2,7	$ 3,1	$ 3,3	$ 14.4
Government of Brazil	$ 7,0	$ 2,2	$ 3,9	$ 4,0	$ 18,1
Total Project Financing	$ 22,0	$ 20,0	$ 20,5	$ 18.0	$ 81.5

ANNEX 6

PROCUREMENT AND DISBURSEMENT ARRANGEMENTS

A: Procurement

1. Procurement Arrangements

Procurement for the proposed project would be carried out in accordance with World Bank *Guidelines: Procurement Under IBRD Loans and IDA Credits*, published in January 1995 (revised January/August 1996, September 1997, and January 1999); and *Guidelines: Selection and Employment of Consultants by World Bank Borrowers*, published in January 1997 (revised September 1999, January 1999, and April 2002), and the provisions stipulated in the Loan Agreement.

1.1 Procurement methods. The methods to be used for the procurement are described below. The estimated amounts for each method are summarized in Table 6.1. The threshold contract values for the use of each method are fixed in Table 6.2.

Procurement of works. Works for Subprojects and for activities financed under the Endowment Fund shall be procured under lump-sum, fixed-price contracts awarded on the basis of quotations obtained from three (3) qualified domestic contractors in response to a written invitation. The invitation shall include a detailed description of the works, including basic specifications, the required completion date, a basic form of agreement acceptable to the Bank, and relevant drawings, where applicable. The award shall be made to the contractor who offers the lowest price quotation for the required work and who has the experience and resources to complete the contract successfully.

Procurement of goods. Goods procured under the GEF grant will include office installation and furniture, computers, printers, software, laser scanners, radios, and so forth, in the amount of US$0.3 million equivalent. Because these goods will be bought at different times and would be delivered at different places, such as Rio de Janeiro, Brasilia, and Manaus, there will be no economic advantage in grouping these goods. It will not be possible to group these goods into larger packages for National Competitive Bidding (NCB); therefore, they will be purchased using shopping (national /international) procedures based on a model request for quotations (RFQ) agreed with the Bank.

Consultant selection. Consulting services will be contracted following the guidelines for the selection and employment of consultants by World Bank borrowers, printed in January 1997 (revised in September 1997, January 1999, and April 2002). These services are estimated to cost US$5.9 million equivalent for the GEF grant.

Firms. All contracts for firms would be procured using Quality- and Cost-based Selection (QCBS) procurement procedures, except for small and simple contracts estimated to cost less than US$200 thousand equivalent, which would be procured using Least Cost Selection (LCS) procedures up to an aggregate amount of US$300 thousand equivalent, and contracts estimated to cost less than US$100 thousand equivalent, which would be procured using the Selection Based on Consultants' Qualifications (CQ), up to an aggregate amount of US$200 thousand equivalent.

Least Cost Selection. The following contracts would be procured following Least Cost Selection (LCS) procedures: (a) one contract for the development of computer network services, estimated to cost approximately US$190 thousand; (b) one contract for auditing of the projects, estimated to cost approximately US$100 thousand; and (c) one training workshop, estimated to cost US$30thousand. The types of service required will be defined in detail in the Terms of References (TORs), and are based on well-established practices, standards, and methodologies that justify the use of LCS for these contracts.

Consultant qualifications. The following contracts would be awarded on the basis of Consultant Qualifications (CQ) procedures: (a) three contracts for workshops on a legal issues for revenue-generating activities in PAs, estimated to cost approximately US$33 thousand equivalent each; (b) one contract for monitoring asset management investments, estimated to cost approximately US$35 thousand equivalent; (c) two contracts for studies on legal instruments in PAs, estimated to cost approximately US$25 thousand equivalent each. The simple scope of work envisioned for these assignments, which does not warrant the need for comparing competitive proposals, and the small dollar amounts, justify the use of CQ for these contracts.

Individuals. Specialized advisory services, technical assistance, legal services, studies, and so forth, would be provided by individual consultants. These consultants shall be selected by comparison of qualifications of three candidates, and hired in accordance with the provisions of paragraphs V.1 through V.4 of the Consultants Guidelines, up to an aggregate amount of US$5.2 million equivalent.

Services. Services such as demarcation of the protected areas, logistics for training, reproduction of documents, and printing, totaling up to US$2.4 million equivalent, will be procured, at different times, for each individual protected area scattered over the Amazon region. Such services would be procured through price quotations, based on documentation agreed with the Bank.

Operating costs. Sundry items, office rental, and utilities would be financed, and would be procured by FUNBIO using administrative procedures acceptable to the Bank.

Subprojects. The Project also will finance local community initiatives for sustainable use of biodiversity and revenue-generating subprojects by NGOs and local groups. Individual subprojects, which may consist of procurements of small equipment, operational costs, services, consulting services, are not expected to surpass US$30 thousand equivalent. Due to the small project size, it is expected that the majority of subproject inputs would be procured under community participation methods, such as national shopping procedures. Eligibility criteria, and authorized procurement and payment procedures, for the subprojects will be included in the Operational Manual.

Endowment capital. GEF will finance US$14.5 million equivalent of the endowment capital for protected areas that have been consolidated under the Project. The revenues from the endowment fund will be used to cover the recurrent costs for the management of the protected areas.

1.2 Prior review thresholds. The proposed thresholds for prior review are based on the procurement capacity assessment of the project implementing unit, and are summarized in Table 6.2. In addition to this prior review of individual procurement actions, the plan and budget for the PCU Operating Costs will be reviewed and approved annually by the Bank.

2. Assessment of FUNBIO's Capacity to Implement Procurement

Procurement activities will be carried out by FUNBIO in close coordination with the Ministry of Environment. FUNBIO will administer the project funds provided by the donors, and the Ministry of Environment (MMA) will administer the funds provided by the federal government. FUNBIO will maintain one office in Rio de Janeiro and one office in Manaus, which is closer in location to the PAs. The office in Manaus will carry out all Shopping procedures for the procurement of small goods demanded by the PAs. FUNBIO's office in Rio de Janeiro is now staffed by a Project Manager, an administrative unit of three staff, an accounting unit of two staff, a procurement unit with two procurement analysts and two assistants, and a lawyer. FUNBIO will hire a Procurement Officer and two more assistants for the office in Rio de Janeiro. For the Manaus office, FUNBIO will hire two Procurement Officers, two technical staff, who will receive and distribute the goods to the PAs, and two assistants. FUNBIO also will maintain a representative in the Ministry of Environment to liaise between the MMA and FUNBIO. The Operational Manual will include, in addition to the procurement procedures, the Standard Bidding Documents to be used for each procurement method, as well as model contracts for works and goods procured on the basis of three quotations or shopping.

An assessment of the capacity of PROARPA (the unit within FUNBIO responsible for procurement) to implement procurement actions for the Project has been conducted and was approved by the Regional Procurement Advisor on June 21, 2002. The assessment reviewed the proposed organizational structure and found it reasonable. Training in procurement will need to be provided to the staff of FUNBIO in Rio de Janeiro and in Manaus.

One of the issues concerning implementation of the project by FUNBIO is the lack of experience in implementing a larger Bank project. FUNBIO has implemented a previous project in which all purchases were under the modality of Shopping. The risks identified in the assessment include: (a) the possibility of interference from inexperienced procurement staff in procurement management; (b) unrealistic procurement planning; and (c) the need to improve procurement filing in the Central Unit and to develop a contract monitoring system. A detailed plan was developed and approved by FUNBIO to address these risks. The plan involves: (a) promoting a training program for the staff in Rio de Janeiro and Manaus; (b) discussing the procurement plan with the Bank, creating a monitoring system, and maintaining control of the procurement actions by using such monitoring system; and (c) hiring one consultant to make recommendations to improve the filing system.

Monitoring of procurement actions and evaluation of contracts awarded under this Project are key activities envisaged in the procurement plan, with a specific need of human and financial resources. Document filing is to improve after the new system is implemented, and is expected to comply with the Bank's requirements. The new system will specify the procurement documents to be filed, the PCU staff who would have access to the files, and the internal security measures for record-keeping.

The overall project risk for procurement is AVERAGE.

3. Procurement Plan

At appraisal, FUNBIO developed a procurement plan for project implementation that establishes the basis for the aggregate amounts for the procurement methods (per Table 6.1). A timetable of procurement activities is also being updated for the first year of the Project. The timetable for

each year of the Project will be prepared based on the POA (*Plano Operativo Annual*) that is annually generated by the government. The POA will contain the demands from each PA for that year.

4. Frequency of Procurement Supervision

In addition to the prior review supervision to be carried out from Bank offices, the capacity assessment of FUNBIO has recommended one full supervision mission to visit the field for the purpose of carrying out a post-review of procurement activities. Based on the overall risk assessment (AVERAGE) for the project, the post-review field analysis should utilize a sample of not less than one-in-five contracts signed.

Table 6.1 Project Costs by Procurement Arrangement
(in US$ million equivalent)

Expenditure Category	Procurement Method					Total Cost
	ICB	NCB	Other[1]	Other[2] donors	N.B.F	
1. Works	**0.0** (0.0)	**0.0** (0.0)	**0.0** (0.0)	**6.5** (0.0)	**3.0** (0.0)	**9.5** (0.0)
2. Goods	**0.0** (0.0)	**0.0** (0)	**0.3** a/ (0.3)	**6.1** (0.0)	**0.6** (0.0)	**7.0** (0.3)
3. Services	**0.0** (0.0)	**0.0** (0.0)	**2.4** b/ (2.4)	**9.2** (0.0)	**0.0** (0.0)	**11.6** (2.4)
4. Consulting Services	**0.0** (0.0)	**0.0** (0.0)	**5.9** c/ (5.9)	**0.7** (0.0)	**1.2** (0.0)	**7.8** (5.9)
5. Operational Costs	**0.0** (0.0)	**0.0** (0.0)	**2.6** (2.6)	**4.4** (0.0)	**0.0** (0.0)	**7.0** (2.6)
6. Subprojects	**0.0** (0.0)	**0.0** (0.0)	**4.3** (4.3)	**0.0** (0.0)	**0.0** (0.0)	**4.3** (4.3)
7. Endowment Fund	**0.0** (0.0)	**0.0** (0.0)	**14.5** (14.5)	**6.5** (0.0)	**0.0** (0.0)	**21.0** (14.5)
8. Land	**0.0** (0.0)	**0.0** (0.0)	**0.0** (0.0)	**0.0** (0.0)	**13.3** (0.0)	**13.3** (0.0)
Total	**0.0** (0.0)	**0.0** (0.0)	**30.0** (30.0)	**33.4** (0.0)	**18.1** (0.0)	**81.5** (30.0)

Notes:
N.B.F. = Not Bank-financed (includes the expenses covered by the Brazilian government)
Figures in parentheses are the amounts to be financed by the GEF grant.

Footnotes:
a/ Shopping (National and International)
b/ Services other than Consulting Services
c/ Consultants Services. Contracts awarded to firms using Quality-and Cost-based Selection (QCBS), Least Cost Selection (LCS) and Selection Based on Consultants' Qualification (CQ), up to an aggregate amount of US$0.7 million; and to individual consultants in accordance with paragraphs V.1–V.4 of the Consultants Guidelines, up to an aggregate amount of US$5.2 million. Details provided in Table 6.2.

[1] The *Operational Memorandum Bank Policy on Financing Income Taxes*, issued on June 13, 2001, clarifies the Bank's policy against financing local income taxes in Bank-financed operations. One clarification that came about in this Memorandum is that GEF grants to nongovernmental organizations can pay taxes out of the grant proceeds. The rule applies to the proposed project, and therefore the GEF grant will finance 100 percent of contracts.
[2] The donors with commitments for this project are KfW and WWF.

Table 6.2 Consultant Selection Arrangements (optional)
(in US$ million equivalent)

Consultant Services Expenditure Category	Selection Method								
	QCBS	QBS	SFB	LCS	CQ	Other	Other donors	N.B.F.	Total Cost including contingencies
A. Firms	0.2 (0.2)	0.0 (0.0)	0.0 (0.0)	0.3 (0.3)	0.2 (0.2)	0.0 (0.0)	0.7 (0.7)	1.2 (0.0)	2.6 (0.7)
B. Individuals	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	5.2 (5.2)	0.0 (0.0)	0.0 (0.0)	5.2 (5.2)
Total	0.2 (0.2)	0.0 (0.0)	0.0 (0.0)	0.3 (0.3)	0.2 (0.2)	5.2 (5.2)	0.7 (0.7)	0.8 (0.0)	7.8 (5.9)

Notes:
- QCBS = Quality- and Cost-based Selection
- QBS = Quality-based Selection
- SFB = Selection under a Fixed Budget
- LCS = Least Cost Selection
- CQ = Selection Based on Consultants' Qualifications
- Other = Selection of individual consultants (per Section V of Consultants Guidelines)
- N.B.F. = Not Bank-financed
- Figures in parentheses are the amounts to be financed by the GEF grant.

Table 6.3 Thresholds for Procurement Methods and Prior Review

Expenditure Category	Contract Value (Threshold)	Procurement Method	Contracts Subject to Prior Review
	US$ thousands		US $ millions
1. Works	<350	Three Quotations	Not financed by GEF
2. Goods			
	100–350	NCB	Not financed by GEF
	<100	Shopping	First two contracts
3. Consultants Firms	>100	QCBS	All
	<100	QCBS, LCS, CQ	None (Post Review)
Individuals	>50	See Section V of Guidelines	All (TOR, contract, CV)
	20–50	See Section V of Guidelines	Review of TOR only
	<20	See Section V of Guidelines	None (Post Review)
Total value of contracts subject to prior review:			**US$ 8.5**[1]

Overall Procurement Risk Assessment:

High	
Average	X
Low	

Frequency of procurement supervision missions proposed: One every 12 months (includes special procurement supervision for post-review), reviewing a sample of one-in-five contracts signed.

[1] Of the US$30 million financed by the GEF grant, US$14.5 million will be used for the Endowment Fund, which will be capitalizing the funds during the first four years of the Project and, therefore, no procurement will apply.

B: Financial Management and Disbursement

1. Financial Management and Disbursement Arrangements

1.1 Country issues.

A Country Financial Accountability Assessment (CFAA) has recently been conducted for Brazil and a draft report has been prepared, with the final report to be completed following a workshop including the Bank and relevant government officials. The report presents findings that Brazil has sound financial management and accounting practices that allow for transparent budget preparation and execution. The report provides adequate assurance that there are no major accounting or financial management accountability issues.

1.2 Strengths and weaknesses.

FUNBIO was established in 1996 under the GEF Pilot Phase (US$20 million grant from GEF, US$10 million from other domestic and international partners). FUNBIO was designed and is operating under the best practices stated in the GEF's Evaluation of Experiences with Conservation Trust Funds (1998). FUNBIO involves an innovative arrangement whereby release of GEF capital for the endowment is tied to mobilization of matching funds primarily from the private sector. FUNBIO has an independent governing Board that seeks to assure both representativity and transparency in its activities. On the other hand, FUNBIO will have to strengthen its current management structure to implement ARPA.

1.3 Implementing entity and staffing.

FUNBIO's organizational structure has been set up in accordance with the terms in the GEF Trust Fund agreement. FUNBIO is responsible for the management of the funds through an asset manager, as established in the agreement. FUNBIO has allocated staff of 16 people, and has a financial management unit in its organizational structure. A temporary financial manager is on board (see B.7, Action Plan and Conditions, in this Annex) who is responsible for the maintenance of the financial routines and preparation of the financial reports. The accounting services have been rendered to a third party accounting firm, which provides FUNBIO's financial manager with the accounting information needed to prepare the financial management reports. The accounting transactions are recorded based on the chart of accounts, which reflects the design of FUNBIO's activities; these accounting records can be easily identified and the Project's expenditures can be tracked in the accounting books. The balance sheets and general ledger of the project are prepared on a timely basis by the accounting firm and submitted to FUNBIO's financial management unit accordingly. According to the GEF Trust Fund agreement, FUNBIO must have all balance sheets audited by an independent auditor. The Bank reviewed the audit report submitted by Deloitte Touche Tohmatsu for the year 2000, and no relevant matters were reported by the auditors. The Bank's recommendation is that FUNBIO hire a qualified financial manager to fulfill the financial management requirements as a condition of effectiveness.

2. Reporting and Information System

FUNBIO needs to have in place a financial management system capable of generating financial, physical monitoring, and procurement reports (FMRs). Currently, FUNBIO uses Microsoft® Excel spreadsheets to prepare its reports and SOEs to disburse funds. Based on the results of the financial management assessment, FUNBIO must put in place a financial management system to generate FMRs (see B.7, Action Plan and Conditions, in this Annex). This requirement is a condition of effectiveness. FUNBIO will send the FMRs to the Project Coordination Unit at MMA, where they will be consolidated for the entire Project, including the expenditures of the government funds, before being sent to the Bank.

3. Accounting Procedures

In the past, FUNBIO has hired an accounting firm to perform all accounting services. The accounting firm produces all accounting reports and FUNBIO uses these reports and accounting records to produce its management reports. Based on the results of the financial management assessment carried out by the Bank, it was agreed that FUNBIO would establish an accounting department to manage the financial and accounting activities of ARPA (see B.7, Action Plan and Conditions, in this Annex). This accounting unit will oversee the financial and accounting activities of the Special Account and of the endowment fund. The endowment fund does not follow the same disbursement procedures as the Special Account but, during the duration of the project, is subject to the same Bank procurement and financial guidelines as is the Special Account.

4. Flow of Funds, Disbursement, and Special Account

4.1 Project Components.

FUNBIO will establish a special account, in U.S. Dollars, in a commercial bank. The Special Account will have an authorized allocation of US$2.5 million, based on projected disbursements for four months. Disbursements would be made on the basis of statements of expenditure (SOEs), except for goods above US$100 thousand equivalent, contracts with consulting firms above US$100 thousand equivalent, and contracts with individuals above US$50 thousand equivalent. In these cases, all contractual information must be attached to a Summary Sheet (SS). The information required for the compilation of SOEs would be maintained by the financial management unit in the MIS database.

4.2 FAP (Endowment Fund).

FUNBIO will establish the endowment fund (FAP) to receive and manage US$14.5 million from the GEF grant and the other donors' funds (Component 3). The GEF and matching funds will be managed, by an asset manager selected by FUNBIO, following Bank procurement guidelines and agreed with the Bank, and under investment guidelines and spending rules approved by the Bank and detailed in the FAP Operational Manual. The Bank's approval of the FAP Operational Manual will be a condition of effectiveness. The GEF funds will be kept separate from other donors' funds. Before disbursements can occur, two conditions must be met: the asset manager's agreement has been signed; and the Bank has verified the proof of matching funds. FUNBIO will submit withdrawal applications to the Bank, with attached proof showing the amount of the matching

contribution made to the endowment fund. The Bank provides the "no objection" decision after verifying that the matching requirements have been fulfilled. Thereafter, the Bank authorizes the disbursement to the asset manager's account. Proof of matching can be bank statements or signed contracts with donors. Withdrawal applications may be submitted for amounts up to US$250 thousand. If FUNBIO has raised less than US$250 thousand, it will not present a withdrawal application until they have proof of a minimum of US$250 thousand in matching funds to trigger the Bank's deposit. The intervals of disbursements will depend on the fundraising target reached. The fundraising plan indicates that approximately US$2 million will be raised every semester. This will trigger a disbursement from the GEF trust fund to the Endowment of approximately US$ 2 million every semester until the GEF funds allocated to the endowment fund (US$14.5 million) are exhausted.

FAP will be governed within FUNBIO's Board of Directors and through ARPA's Program Commission, and according to procedures spelled out in the FAP Operational Manual. Annex 12 describes in detail the operation of FAP.

The KfW funds (US$14.4 million) would be channeled through MMA/PPG7 to a special project account also managed by FUNBIO. This account would cover direct investments under Components 1 and 2. Similar disbursement procedures as described in item 4.1 above (on the Special Account) will apply to KfW funds and will be specified in the respective agreement ("Grant Agreement") between MMA, FUNBIO, and KfW. Funds from WWF (US$16.5 million) would be channeled directly from the GEF account through FUNBIO into a separate account. A full description and chart showing the flow of funds is presented in Annex 6, Table 6.2.

5. Financial Management Arrangements

FUNBIO will establish two separate bank accounts: a US$ Special Account and an operational account in R$. These two accounts will be reflected in the accounting system of FUNBIO, and will be subject to reconciliation with Bank's statements. Pending items will be reflected in this reconciliation.

For FAP's income on investments, FUNBIO will establish an operational account in R$ in a commercial bank in Brazil. This account will be reflected in the accounting books of FUNBIO.

Results of the Assessment: FUNBIO is staffed with accountants and accounting technicians who are experienced with Special Account and disbursement procedures.

6. Auditing Arrangements

The Project will have the auditors appointed no later than three months after effectiveness, and the auditors will submit an opinion letter six months after implementation, stating the adequacy of the accounting and internal control systems to monitor expenditures and other financial transactions, and to ensure safe custody of project-financed assets. PROARPA will follow up on the progress of such hiring. Audited financial statements will be prepared, in accordance with terms of reference acceptable to the Bank, and submitted each calendar year for the Project and the endowment fund. The auditor will be expected to express separate opinions on the Project financial statements, the Special Account; the use of the SOEs as a basis of disbursement; and the endowment fund financial statements. The audit reports will be submitted to the Bank no later than June 30 of the year following the end of each calendar year.

Table 6.4 Schedule of Audit Reports

Audit Report	*Due Date*
Endowment Fund	June 30 following the year in which the expenditures were incurred
Project	June 30 following the year in which the expenditures were incurred
SOE	June 30 following the year in which the expenditures were incurred
Special Account	June 30 following the year in which the expenditures were incurred
Contract Clauses	June 30 following the year in which the expenditures were incurred

7. Action Plan and Conditions

Table 6.5

Action	Responsible Party	Completion Date
To have in place a financial management system capable of generating FMRs	FUNBIO	Before effectiveness
To hire a financial manager and staff to respond to the increased workload—before effectiveness	FUNBIO	Before effectiveness
TORs for audit services agreed with the Bank	FUNBIO	Before effectiveness

8. Supervision Plan

Supervision missions will be undertaken at least twice a year, although it is likely that additional supervision activities will be carried out given the task team leader's frequent missions to Brazil to work on other projects. The supervision missions will periodically include a financial management specialist and a procurement specialist. PSRs will be updated after each mission. When appropriate, these reports will cover all issues related to financial control, audit matters, and the monitoring of the procurement plan. The major responsibility for procurement and financial management supervision, and for client assistance in these areas, will be provided through the Country Management Unit (CMU) Brasília-based Implementation Team that is fully staffed to carry out these functions.

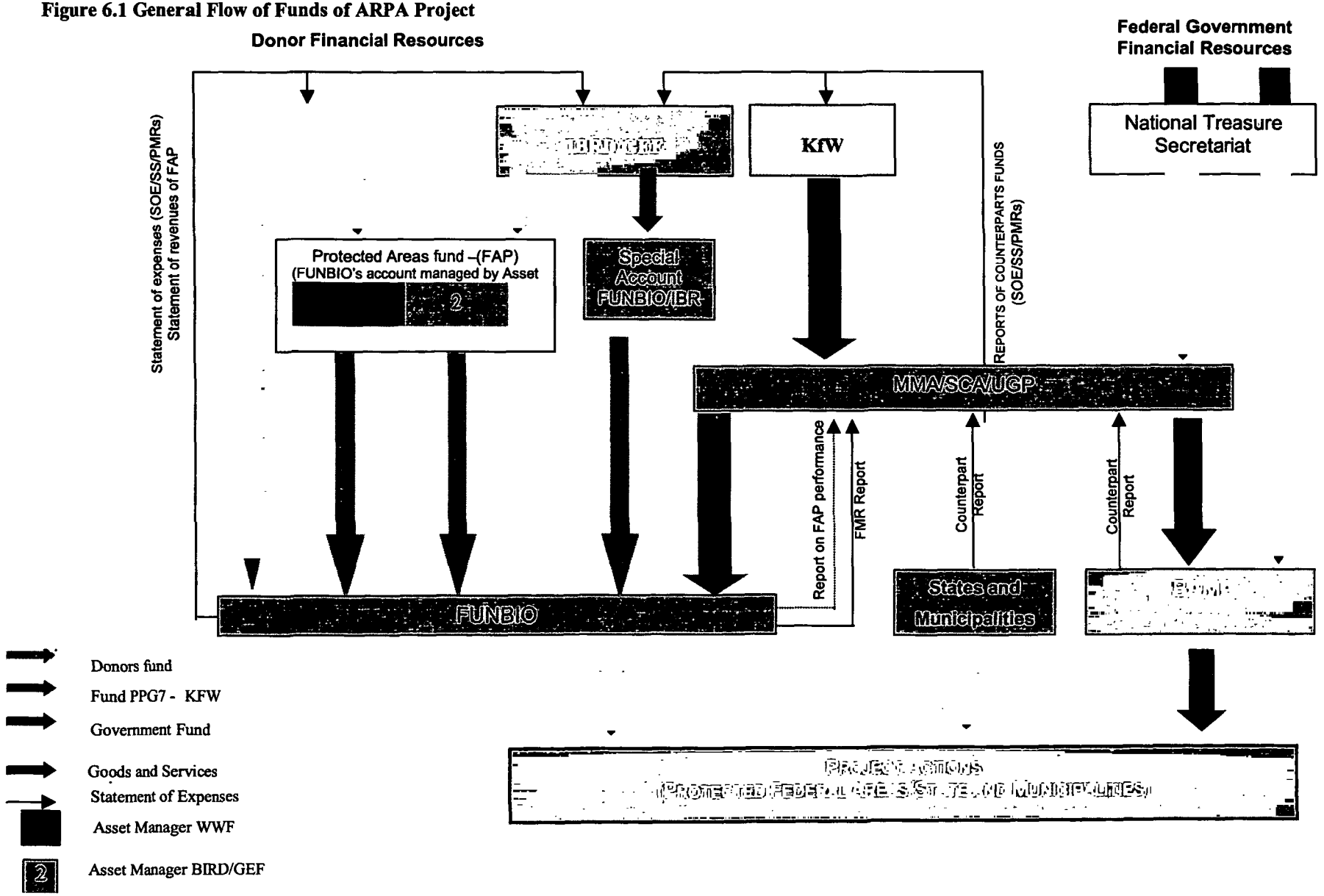
Table 6.6 Allocation of Grant Proceeds by Project Category

Expenditure Category	Allocation of Grant Proceeds (US$ million)	Financing [1] percent
Goods (for Component 5)	0.2	100
Consulting Services (consultants) (for Components 1, 2, 3, and 5)	5.3	100
Consulting Services (firms) (for Component 5)	0.8	100
Services (demarcation, logistics, printing) (for Components 2, 3, and 5)	1.9	100
Subprojects[2]		
(for Components 2	2.1	100
(for Component 3)	1.3	100
Operational Expenditures (for Components 2 and 5)	2.0	86
Endowment Fund (for Component 3)	14.5	100
Unallocated	1.9	
TOTAL	30.0	

[1] The *Operational Memorandum Bank Policy on Financing Income Taxes*, issued on June 13, 2001, clarifies the Bank's policy against financing local income taxes in Bank-financed operations. One clarification that came about in this Memorandum is that GEF grants to nongovernmental organizations can pay taxes out of the grant proceeds. The rule applies to the proposed project and therefore the GEF grant will finance 100 percent of contracts.

[2] Eligibility criteria and the agreed procurement and payment procedures for subprojects will be included in the Operational Manual. The Project could finance works, goods, and services for the subprojects.

Figure 6.1 General Flow of Funds of ARPA Project



ANNEX 7

PROJECT PROCESSING BUDGET AND SCHEDULE

Table 7.1 Project Budget and Schedule

A. Project Budget (in US$)	**Planned**	**Actual**	
	(At final IEPS stage)	FY96	15,000
	N/A	FY97	118,430
		FY98	141,300
		FY99	94,575
		FY00	94,105
		FY01	53,260
		TOTAL	**516,670**

B. Project Schedule

Time taken to prepare the project (months)	
First Bank mission (identification)	June 1998
Appraisal mission departure	May 29, 2002
Negotiations	July 1, 2002
Board	August 8, 2002
Planned Date of Effectiveness	October 2002

Prepared by: Ministry of Environment, Brazilian Institute for the Environment and Renewable Resources (IBAMA), state environment agencies of Amazonas, Bahia, and Espírito Santo

Preparation assistance: BIRD, KfW, GTZ, EC

C. Staff who worked on the project included:

Name	**Specialty**
Claudia Sobrevila	Senior Biodiversity Specialist/Task Manager
Adriana G. Moreira	Senior Environment Specialist/Task Manager
Judith Lisansky	Senior Anthropologist
Irani Escolano	Procurement Analyst
Túlio Correa	Financial Management Specialist
Musa Asad	Financial Specialist
Marta Morales-Halberg	Senior Lawyer
Daniel Gross	Senior Anthropologist

ANNEX 8

DOCUMENTS IN THE PROJECT FILE

Preparation Reports

MMA, CD-R "Projeto ARPA"

UNDP, GEF, The Nature Conservancy, RedLAC, Forest Trends, UNEP, Wildlife Conservation Society, "Training Guide for Conservation Finance Mechanisms," Nov 2001

Forense Universitária, "Direito Ambiental das Áreas Protegidas"

Conservation International, IPAM, ISPN, IMAZON, GTA, "Biodiversidade na Amazônia Brasileira," 2001

Proposta de Regulamentação dos Artigos do SNUC, October 2001

WB, "Projeto Áreas Protegidas Missão de Pré-Appraisal"

WB, "Ajuda Memória - Missão de Pré-Avaliação," Dec 2000

WB, Letter of Agreement TF028493 (Expansão e Consolidação de um Sistema de Áreas Estritamente Protegidas na Região Amazônica do Brasil), April 1999

WB, Projeto "Expansão e Consolidação de um Sistema de Áreas Estritamente Protegidas na Região Amazônica do Brasil," Ajuda Memória da I Reunião de Trabalho do GT, September 1999

GEF "Proposal for Project Development Funds (PDF)" – Block B Grant

FAO – Food and Agriculture Organization, "Terms of Reference"

GEF - Fundo para o Meio Ambiente Mundial, "Proposta para o Fundo de Desenvolvimento de Projetos (PDF)," Doação Bloco B

MMA, "Memória de Reunião," April 29, 1999

MMA, "Termo de Cooperação Técnica entre o Governo do Brasil e a FAO para desenvolver projeto de Assistência Preparatória para Expansão e Consolidação de um Sistema de Áreas Estritamente Protegidas na Região Amazônica do Brasil (GCP/BRA/054/WBG)," April 6, 1999

"Memorandum of Understanding, WB-WWF Alliance for Forest Conservation and Sustainable Use," April 28, 1998

WB, "Project Brief," Brazil Amazon Region Protected Areas Program, April 27, 2000

WWF, "Work Program: Comments from Council Members (Reference to GEF/C.15/3)," April 7, 2000

MMA, "Proposta de Prorrogação da Etapa de Assistência Preparatória," February 2000

MMA, "Subsídios à Elaboração do Documento Conceitual do Projeto," February 2000

MMA, "Consolidação de Unidades de Conservação Existentes nos Primeiros 4 anos do Projeto," June 2001

MMA, "Novos Critérios de Priorização de Áreas para Criação de Novas Unidades de Conservação no 1° ano do Projeto," June 2001

WB, "Estratégia para o Trato com as Populações Indígenas e Populações Tradicionais envolvidas no Projeto"

WB, "Metodologia de Consulta para a Criação de Unidades de Conservação"

WB, "Procedimentos Gerais para o Estabelecimento de Arranjos Interinsitucionais Locais"

WB, "Consultoria e Serviços Prestados por Pessoa Jurídica"

WB, "Bens e Equipamentos e Material Permanente (Goods)"

WB, "Obras e Serviços de Engenharia (Works)"

ANNEX 9

STATEMENTS OF LOANS AND CREDITS

Mar-2001

Project ID	FY	Purpose	Original Amount in US$ Millions IBRD	IDA	GEF	Cancel.	Undisb	Difference between expected and actual disbursements* Orig	Frm Rev'd
P050772	2001	LAND BASED POVERTY ALLEVIATION I	202.10	0.00	0.00	0.00	189.42	0.00	0.00
P059568	2001	BR BA BASIC EDU PROJECT (PHASE I)	69.60	0.00	0.00	0.00	69.60	0.00	0.00
P059566	2001	BR CEARA BASIC EDUCATION	90.00	0.00	0.00	0.00	90.00	0.00	0.00
P060575	2001	BR PROGRAMMATIC FISCAL REFORM SAL	757.58	0.00	0.00	0.00	757.58	0.00	0.00
P039199	2000	PROSANEAR 2	30.30	0.00	0.00	0.00	30.00	-0.30	0.00
P006449	2000	CEARA WTR MGT (PROGERIRH)	136.00	0.00	0.00	0.00	131.65	22.78	0.00
P047309	2000	BR ENERGY EFFICIENCY (GEF)	0.00	0.00	15.00	0.00	14.41	0.67	0.00
P062619	2000	INSS REF LIL	5.05	0.00	0.00	0.00	4.00	1.78	0.00
P035741	2000	NATL ENV 2	15.00	0.00	0.00	0.00	13.61	1.65	0.68
P050776	2000	NE Microfinance Development	50.00	0.00	0.00	0.00	42.00	-8.00	0.00
P038200	2000	ENERGY EFFICIENCY (ELETROBRAS)	43.40	0.00	0.00	0.00	43.40	1.67	0.00
P050763	1999	BR- Fundescola 2	202.00	0.00	0.00	0.00	112.71	29.94	0.00
P054120	1999	BR- AIDS & STD Control II	165.00	0.00	0.00	3.50	93.47	55.31	0.00
P053388	1999	ANIMAL&PLANT DIS CO	44.00	0.00	0.00	0.00	44.00	17.77	0.00
P043874	1999	BR DISEASE SURVEILLANCE - VIGISUS	100.00	0.00	0.00	0.00	87.22	65.56	0.00
P058129	1999	BR EMER. FIRE PREVENTION	15.00	0.00	0.00	0.00	12.95	11.62	2.27
P048869	1999	SALVADOR URBAN TRANS	150.00	0.00	0.00	0.00	144.47	62.81	0.00
P050762	1998	BR- Fundescola I	62.60	0.00	0.00	0.00	2.71	4.77	0.00
P042565	1998	PARAIBA R POVERTY	60.00	0.00	0.00	0.00	35.82	8.69	0.00
P043420	1998	WATER S MOD 2	150.00	0.00	0.00	0.00	148.29	119.60	75.00
P043421	1998	RJ M.TRANSIT PRJ	185.00	0.00	0.00	17.17	157.45	169.71	0.00
P048357	1998	CEN BANK TAL	20.00	0.00	0.00	0.00	7.31	7.31	0.00
P038947	1998	BR- SC & TECH 3	155.00	0.00	0.00	0.00	128.13	108.13	0.00
P006174	1998	BR LAND MGT 3 (SAO PAULO)	55.00	0.00	0.00	0.00	53.00	25.67	9.83
P038895	1998	FED WTR MGT	198.00	0.00	0.00	0.00	129.78	92.60	16.43
P057910	1998	BR PENSION REFORM LIL	5.00	0.00	0.00	0.00	3.33	3.33	0.00
P035728	1998	BAHIA WTR RESOURCES	51.00	0.00	0.00	0.00	34.92	27.80	0.00
P051701	1998	MARANHAO R.POVERTY	80.00	0.00	0.00	0.00	16.28	-16.18	0.00
P006559	1998	(BF-R)SP TSP	45.00	0.00	0.00	0.00	43.28	41.95	0.00
P048870	1997	BR MT STATE PRIV	45.00	0.00	0.00	0.00	5.00	5.00	0.00
P038898	1997	R.POVERTY(RGN)	24.00	0.00	0.00	0.00	5.04	5.04	0.00
P046052	1997	CEARA WATER PILOT	9.60	0.00	0.00	0.00	5.03	5.03	0.68
P006532	1997	FED HWY DECENTR	300.00	0.00	0.00	0.00	164.46	164.46	0.00
P006475	1997	LAND REFM PILOT	90.00	0.00	0.00	0.00	28.87	24.23	0.00
P006562	1997	BAHIA MUNI DV	100.00	0.00	0.00	0.00	74.64	60.21	2.34
P034578	1997	RGS HWY MGT	70.00	0.00	0.00	0.00	54.97	41.97	17.31
P042568	1997	R.POVERTY(PE)	39.00	0.00	0.00	0.00	6.79	6.79	0.00
P043873	1997	AG TECH DEV	60.00	0.00	0.00	0.00	39.11	29.95	8.44
P043871	1997	(PIAUI)R.POVERTY	30.00	0.00	0.00	0.00	2.99	2.99	0.00
P043808	1997	RGS LAND MGT/POVERTY	100.00	0.00	0.00	0.00	73.08	37.22	0.00
P044697	1996	BR BIODIVERSITY FUND	0.00	0.00	20.00	0.00	8.37	9.70	0.00
P037829	1996	BR (PR)R.POVERTY	175.00	0.00	0.00	0.00	104.14	91.68	0.00
P006210	1996	NATL BIODIVERSITY	0.00	0.00	10.00	0.00	5.52	6.49	7.12
P006554	1996	BR HEALTH SECTOR REFORM - REFORSUS	300.00	0.00	0.00	0.00	176.38	176.38	0.00
P040028	1996	RAILWAYS RESTRUCTURG	350.00	0.00	0.00	50.00	43.42	93.42	43.42
P038882	1996	RECIFE M TSP	102.00	0.00	0.00	0.00	54.13	52.13	0.00
P033884	1995	RURAL POV - CEARA	70.00	0.00	0.00	0.00	1.77	1.62	0.00
P006438	1996	Ceara Urban Development & Water Resource	140.00	0.00	0.00	0.00	25.75	25.75	2.70
P006564	1995	BELO H M TSP	99.00	0.00	0.00	0.00	28.60	26.60	0.00
P035717	1995	RURAL POV (BAHIA)	105.00	0.00	0.00	0.00	1.66	1.66	0.00
P006558	1994	BR- PARANA BASIC EDUC	96.00	0.00	0.00	0.00	7.10	7.10	0.00
P006543	1994	BR- MINAS GERAIS BASIC EDU	150.00	0.00	0.00	0.00	10.68	10.68	0.00
P006524	1994	BR MINAS MNC DEVELOPMT	150.00	0.00	0.00	9.70	20.75	30.45	25.45
P006522	1994	ESP.SANTO WATER	154.00	0.00	0.00	54.00	18.29	72.29	1.33

Project ID	FY	Purpose	Original Amount in US$ Millions					Difference between expected and actual disbursements[1]	
			IBRD	IDA	GEF	Cancel	Undisb.	Orig	Frm Rev'd
P006541	1993	BR WTR Q/PLN(SP/PRF/ED)	245.00	0.00	0.00	11.15	0.05	11.20	0.13
P006454	1992	RONDONIA NTRL RES M	187.00	0.00	0.00	0.00	25.98	25.98	0.00
P006505	1992	MATO GROSSO NAT RES	205.00	0.00	0.00	0.00	34.36	34.36	0.00
		Total:	6518.13	0.00	45.00	145.53	3667.57	1837.28	213.68

BRAZIL
STATEMENT OF IFC's
Held and Disbursed Portfolio
Mar-2001
In Millions US Dollars

		Committed				Disbursed			
		IFC				IFC			
FY Approval	Company	Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
1989/95	Politeno Ind.	10.23	0 00	0 00	0 00	10 23	0 00	0.00	0 00
1994/00	Portobello	16.00	0 00	0 00	0 00	15.29	0 00	0.00	0 00
2000	Puras	5 00	0 00	0 00	0 00	5.00	0 00	0 00	0 00
1998	Randon	7.00	0 00	3 00	0 00	7.00	0 00	3.00	0 00
1991	Rhodia-Ster	1.43	5.95	0.00	0.00	1.43	5 95	0 00	0 00
1995	Rhodiaco/PTA	12 50	0.00	0.00	9.00	12.50	0.00	0.00	9 00
1990	Ripasa	0 00	5 00	0 00	0 00	0 00	5 00	0.00	0 00
1997	Rodovia	31 11	0.00	0 00	63 60	31 11	0.00	0 00	63 60
	S.A I.C.C	0 00	2 85	0.00	0.00	0 00	2.85	0 00	0 00
1994/96	SP Alpargatas	20.00	0 00	5.00	0 00	20 00	0 00	5 00	0 00
1987/97	Sadia	24 00	0 00	8.00	128 00	24.00	0 00	8.00	128 00
1994/95/97	Samarco	13 50	0.00	0 00	9 33	13 50	0 00	0 00	9.33
1997	Samaritano	20 00	0 00	0 00	0.00	0 00	0 00	0 00	0.00
2000	Saraiva	13 85	3 00	0 00	0.00	13 85	3 00	0 00	0 00
1998	Sucorrico	12.00	0 00	0 00	0.00	12 00	0 00	0 00	0 00
1997	TIGRE	17.31	0 00	5 00	10 68	17 31	0 00	5.00	10.68
1996	TRIKEM	0 00	0 00	0 00	0 00	0 00	0 00	0.00	0.00
1992/93	Tecon Rio Grande	7 50	0 00	5 50	18 00	6 65	0 00	5.50	15 95
1998	Votorantim	5.86	0 00	0.00	0.43	5 86	0 00	0 00	0 43
1993	Vulcabras	20 00	0 00	0 00	0 00	20 00	0 00	0 00	0 00
1999	Wembley	0 00	10 00	0.00	0 00	0 00	10 00	0 00	0 00
1997	Wiest	0 00	0.00	8 00	0.00	0 00	0 00	8.00	0.00
1999	Arteb	20 00	7.00	0.00	20 00	20 00	7 00	0.00	20.00
1998	AutoBAn	35 00	0.00	0.00	31 00	22 84	0 00	0 00	20 23
1999	BAGELL	6 00	15 70	0 00	16 20	6 00	15 70	0 00	16.20
1993	BSC	11 53	0 00	0 00	6 18	11.53	0 00	0 00	6 18
1998	Bahia Sul	0 00	0 00	0.00	0.00	0 00	0.00	0.00	0 00
1990/91/92	Banco Bradesco	13 00	0.00	0 00	16.77	13.00	0 00	0 00	16 77
1996	Bompreco	20 83	0.00	5.00	0 00	20.83	0 00	5 00	0 00
1997	Bradesco-Bahia	1 50	0 00	0 00	0 00	1.50	0 00	0.00	0 00
1991	Bradesco-Eucatex	5 00	0 00	0 00	0 00	5 00	0 00	0 00	0 00
1991	Bradesco-Hering	7 50	0.00	0 00	0 00	7.50	0 00	0 00	0 00
1995	Bradesco-Petrofl	7 50	0 00	0.00	0.00	7.50	0.00	0.00	0 00
1991	Bradesco-Romi	0 00	0 40	0 00	0.00	0 00	0 40	0 00	0 00
1991	Brahma - BRA	15 00	0.00	5 00	24 60	15 00	0 00	5.00	24 60
1995	CEVAL	0 00	10 00	0 00	0 00	0 00	10.00	0 00	0 00
1993/96	CHAPECO	15 00	0 00	0 00	5 00	15.00	0.00	0 00	5 00
1994/96	CODEMIN	0 00	0.40	0.00	0 00	0 00	0.40	0.00	0.00
1973/78/83	CRP-Caderi	0 00	0.68	0 00	0 00	0 00	0.68	0.00	0.00
1992	Cambuhy/MC	11 25	0.00	0.00	0 00	11 25	0.00	0 00	0 00
1995	Copesul	32 50	0 00	0 00	141.43	32.50	0 00	0.00	141 43
1997	Coteminas	0 00	0 53	0 00	0.00	0.00	0 53	0.00	0 00
1993/97/00	DENPASA	0 00	0 12	0.00	0.00	0 00	0 05	0 00	0 00
1980/92	Dixie Toga	0 00	15 00	0 00	0 00	0 00	15 00	0.00	0.00
1998									
	Total Portfolio:	740 43	147.92	125 34	877 43	679 36	118 49	122 04	834 96

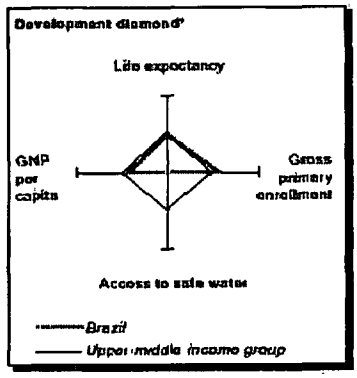
		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic
2000	Sepetiba	27000 00	0 00	6000.00	18000 00
2001	Tecon Salvador	3500 00	0 00	1000 00	5000.00
2000	BBA	50000 00	0 00	0 00	50000.00
1997	CTBC	35000.00	0.00	0.00	150000.00
1999	Cibrasec	0 00	0 00	7500.00	0 00
1998	FSA	35000 00	10000.00	0 00	45000 00
1996	Globocabo II	0.00	0.00	0.00	38000.00
1998	Ipiranga-RI 2	0.00	0 00	92 07	0.00
1999	MBR LTDP	20000.00	5000.00	0 00	115000.00
	Total Pending Commitment:	170500.00	15000.00	14592.07	421000.00

ANNEX 10

COUNTRY AT A GLANCE

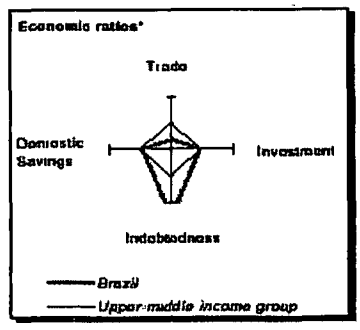
Figure 10.1 Brazil at a Glance

POVERTY and SOCIAL	Brazil	Latin America & Carib.	Upper-middle-income
1999			
Population, mid-year *(millions)*	168.1	509	673
GNP per capita *(Atlas method, US$)*	4,420	3,840	4,900
GNP *(Atlas method, US$ billions)*	742.7	1,955	2,611
Average annual growth, 1993-99			
Population *(%)*	1.4	1.6	1.4
Labor force *(%)*	2.1	2.5	2.1
Most recent estimate (latest year available, 1993-99)			
Poverty *(% of population below national poverty line)*	..	..	..
Urban population *(% of total population)*	81	75	76
Life expectancy at birth *(years)*	67	70	70
Infant mortality *(per 1,000 live births)*	33	31	27
Child malnutrition *(% of children under 5)*	8	8	7
Access to improved water source *(% of population)*	.	75	78
Illiteracy *(% of population age 15+)*	15	12	10
Gross primary enrollment *(% of school-age population)*	125	113	109
Male			
Female			

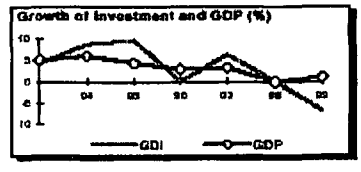


KEY ECONOMIC RATIOS and LONG-TERM TRENDS	1979	1989	1998	1999
GDP *(US$ billions)*	225.0	448.8	787.1	791.4
Gross domestic investment/GDP	22.8	24.8	21.3	21.0
Exports of goods and services/GDP	7.1	8.2	7.4	9.7
Gross domestic savings/GDP	20.7	26.0	18.8	21.7
Gross national savings/GDP	18.0	25.0	16.3	18.8
Current account balance/GDP	-4.7	0.4	-4.3	-3.1
Interest payments/GDP	2.1	0.8	1.4	1.5
Total debt/GDP	27.3	26.5	29.5	28.0
Total debt service/exports	62.8	36.3	73.5	120.8
Present value of debt/GDP			27.9	
Present value of debt/exports			337.5	

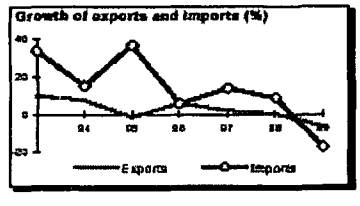
	1979-89	1989-99	1998	1999	1999-03
(average annual growth)					
GDP	2.9	2.6	0.1	1.0	4.0
GNP per capita	0.9	0.7	-1.4	-0.6	2.8
Exports of goods and services	8.9	4.2	0.2	-6.5	5.6



STRUCTURE of the ECONOMY	1979	1989	1998	1999
(% of GDP)				
Agriculture	11.0	8.6	8.4	8.4
Industry	40.8	42.7	28.8	31.7
Manufacturing	31.0	29.6	22.7	22.7
Services	48.3	48.8	62.8	59.9
Private consumption	69.5	57.8	63.6	62.8
General government consumption	9.7	14.3	17.8	15.8
Imports of goods and services	9.2	8.0	10.1	9.0



	1979-89	1989-99	1998	1999
(average annual growth)				
Agriculture	3.4	2.9	0.0	9.5
Industry	2.3	2.1	-1.3	-1.7
Manufacturing	1.9	1.1	-2.0	0.7
Services	3.4	2.7	0.8	1.3
Private consumption	1.9	5.8	3.4	9.4
General government consumption	6.4	2.0	2.1	-9.3
Gross domestic investment	-0.1	2.4	0.1	-8.9
Imports of goods and services	1.4	12.4	8.9	17.4
Gross national product	2.9	2.2	0.0	-1.3

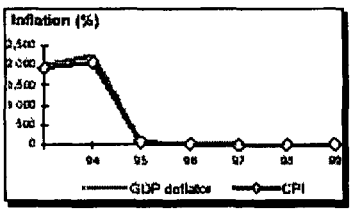


Note: 1999 data are preliminary estimates.

* The diamonds show four key indicators in the country (in bold) compared with its income group average. If data are missing, the diamond will be incomplete.

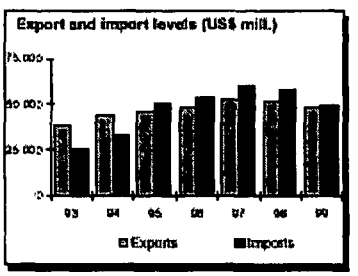
PRICES and GOVERNMENT FINANCE

	1979	1989	1998	1999
Domestic prices				
(% change)				
Consumer prices	.	1,430 7	2 7	8.6
Implicit GDP deflator	56.5	1,322 5	3.9	11 3
Government finance				
(% of GDP, includes current grants)				
Current revenue			20.4	21 9
Current budget balance			-4.4	-5 2
Overall surplus/deficit			-5 5	-6 2



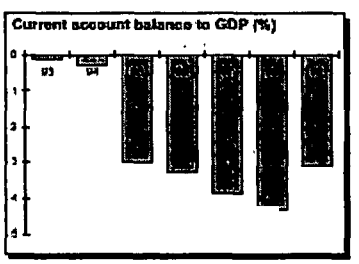
TRADE

	1979	1989	1998	1999
(US$ millions)				
Total exports (fob)		34,375	51,140	48,011
Coffee		1,803	2,576	2,441
Soybeans		3,647	4,755	3,784
Manufactures		17,575	31,964	30,251
Total imports (cif)		18,264	57,733	49,219
Food		1,249	3,057	2,078
Fuel and energy		3,753	1,965	2,169
Capital goods		4,873	25,283	21,157
Export price index *(1995=100)*		98	92	86
Import price index *(1995=100)*		85	84	89
Terms of trade *(1995=100)*		115	108	97



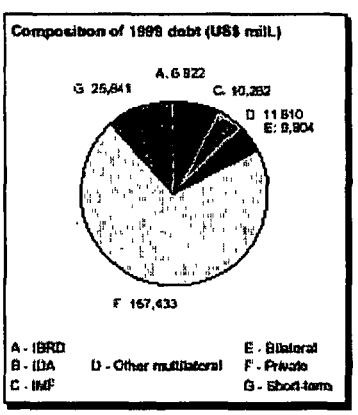
BALANCE of PAYMENTS

	1979	1989	1998	1999
(US$ millions)				
Exports of goods and services	16,708	36,384	55,473	51,887
Imports of goods and services	21,724	21,486	69,650	57,516
Resource balance	-5,016	14,908	-14,177	-5,629
Net income	-5,479	13,285	-21,217	-20,786
Net current transfers	5	249	1,778	2,040
Current account balance	-10,490	1,892	33,616	-24,375
Financing items (net)	7,703	-7,087	16,331	13,634
Changes in net reserves	2,787	5,195	17,285	10,741
Memo:				
Reserves including gold *(US$ millions)*	9,045	7,672	43,971	35,725
Conversion rate *(DEC, local/US$)*	9 79E-12	1 03E-6	1 1	1 9



EXTERNAL DEBT and RESOURCE FLOWS

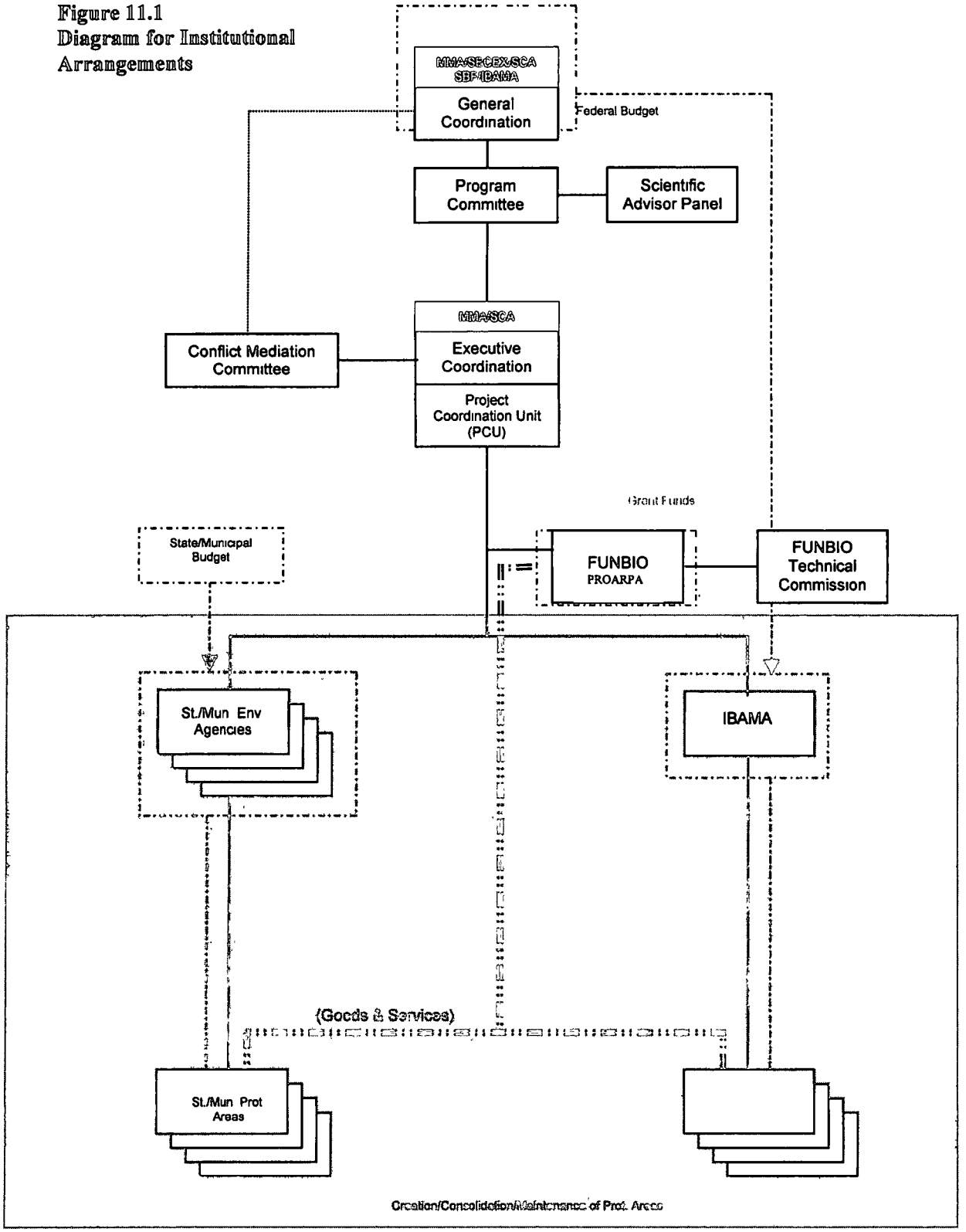
	1979	1989	1998	1999
(US$ millions)				
Total debt outstanding and disbursed	61,327	114,532	232,004	221,782
IBRD	1,790	8,311	6,298	6,822
IDA	0	0	0	0
Total debt service	11,310	14,122	47,887	73,684
IBRD	234	1,475	1,373	1 380
IDA	0	0	0	0
Composition of net resource flows				
Official grants	10	44	97	
Official creditors	436	223	4,911	-1,077
Private creditors	5,236	-3,716	21,930	-15,796
Foreign direct investment	2,419	1,267	31,913	26,916
Portfolio equity	0	0	542	3,234
World Bank program				
Commitments	674	933	1,290	1,465
Disbursements	302	819	1,240	1,533
Principal repayments	74	871	995	952
Net flows	228	-52	245	580
Interest payments	160	604	378	428
Net transfers	67	-656	-133	153



ANNEX 11

INSTITUTIONAL ARRANGEMENTS

Figure 11.1
Diagram for Institutional Arrangements



ANNEX 11-B

INTERNAL STRUCTURE OF FUNBIO TO ACCOMMODATE ARPA

1. General Conditions

FUNBIO's Board of Directors will be in charge of defining the operational aspects of implementing the Program Committee's decisions with regard to matters associated with its role of: (a) performing studies on financial and legal instruments, and pilot projects, aimed at the financial sustainability of protected areas; (b) procuring goods and services needed for protected areas with nongovernmental resources foreseen in the Project; and (c) creating and generating an endowment fund comprised of resources from different donors, as well as from any and all other activities that may be requested under the scope of the ARPA project's execution. These duties are detailed in this document.

The Board also should decide on the creation of new units under the scope of FUNBIO's current structure. Likewise, the selection and hiring of staff required for the performance of FUNBIO's new functions and responsibilities, with regard to ARPA, shall be executed with guidance from the Board and in accordance with regulations usually practiced by the institution.

2. Responsibilities of FUNBIO

In order to carry out the duties mentioned above, FUNBIO, *in accordance with the guidelines set by the Project*, will be responsible for developing appropriate strategies, providing adequate technical and administrative infrastructure, and hiring specialized services needed to:

a. Procure the goods and services called for in the POAs approved and submitted by the Program Committee, according to the regulations established by donors and by Brazilian legislation

b. Constitute and manage an endowment fund, carry out studies, and develop pilot projects required to facilitate Component 3 of the Project

c. Manage resources from the World Bank (GEF) and other donors, including the opening of specific accounts, to deposit, apply, and utilize these resources

d. Oversee compliance with pertinent legal and contractual obligations as well as regulations and procedures required by donors[3], with regard to the Project's financial aspects

e. Specify regulations and operational procedures for the use of Project resources, and prepare financial management and monitoring documents

f. Prepare and present to relevant authorities, within and outside of FUNBIO, reports and balance sheets on the use and application of Project resources

[3] Note that these should be in accordance with the internal institutional regulations that guide FUNBIO's activities.

g. Periodically contract independent auditors

h. Establish policies, procedures, and general principles for the financial investment of resources and the contracting of specialized firm(s) for their application

i. Hire, supervise, monitor, and evaluate asset manager(s)

3. Protected Areas Program (PROARPA)

For the purpose of creating a mechanism to deal with the Project's specific aspects and its dynamics, a Protected Areas Program (PROARPA) will be established in FUNBIO, similar to other development programs currently in existence, such as the Sustainable Production Support Program (PAPS) and the Partnership Funds Program. As envisaged in FUNBIO's Statutes and Operational Manual, such programs are governed by operational objectives, strategies, and regulations, and may have different durations of existence.

PROARPA will be responsible for carrying out actions and procedures needed for the performance of FUNBIO's duties under the scope of the ARPA project. PROARPA's involvement should be consistent both with the guidelines defined for the ARPA project by MMA and IBAMA, and with FUNBIO's institutional mission and strategic guidelines.

PROARPA should have its own structure that is suited to the demands placed on its efforts. This should include the selection and hiring of a responsible professional (Protected Areas Coordinator), and a technical–administrative staff that is compatible in size and qualifications with the functions they should perform.

Program staff will be an integral part of FUNBIO's Executive Secretariat. The Protected Areas Coordinator will be subordinate to the Executive Director, under the guidance and supervision of the Board of Directors. The Board of Directors may delegate to the Coordinator the principal activities of PROARPA's execution, coordination, and management.

In addition to the Coordinator, the technical–administrative staff who will support the program should at first consist of professionals in the following activities: secretarial; procurement; and promotion of studies and projects related to the execution of Component 3 – Maintenance (Financial Sustainability) of the PAs. The need for human resources will be gradually reviewed and adjusted in order to deal with the dynamics of the Project's development demands.

The program's financial and administrative management will be supported by the competent areas of FUNBIO's Executive Secretariat.

4. Technical Commission on Protected Areas

A Technical Commission on Protected Areas (FTC) would be established within FUNBIO to oversee Project implementation and to manage the protected areas endowment fund (FAP). The FTC would consist of members of FUNBIO's Board of Directors, government representatives, CNS, GTA, and private donors. The composition and operation of the FTC would be spelled out in the Project Operational Manual.

FUNBIO's Technical Commission on Protected Areas should act as a liaison between FUNBIO's Board of Directors and the Program Committee, ensuring proper internalization of their decisions and political-strategic guidelines, and should be answerable to FUNBIO's Board of Directors regarding the suitability of these decisions in terms of FUNBIO's mission and the policies in effect in the institution. The FTC also should guide and supervise the implementation of ARPA activities by FUNBIO's operational offices.

The Protected Areas Commission's review of the Program Committee's decision should not cause a delay in its implementation, unless a contradiction is found with FUNBIO's general principles and guidelines. In this case, the Protected Areas Commission should request clarification and an eventual review by the Program Committee, as a stage prior to implementation.

5. Role of Other FUNBIO Commissions

FUNBIO's Technical Commission on Auditing and Finance should exercise its role as a fiscal council, expressing opinions on financial and accounting performance reports, and on asset operations carried out, and issuing opinions to the entity's higher-level agencies with respect to FUNBIO's management of ARPA project resources. It should have free, unrestricted access to all of the program's books and controls, as occurs with the Fund's other activities.

Other Commissions of the Board, such as that of Monitoring and Evaluation, also should extend their responsibilities to the Project.

6. FUNBIO Representation

The need to create a post for FUNBIO representation, with headquarters in Brasília or in a state in the Amazon region, should be evaluated. Its role would be to: (a) provide guidance and assistance to PAs in the preparation of their Annual Operating Plans, in order to ensure agreement with donors' rules; (b) supervise the development of pilot projects for Component 3; and (c) monitor procurement processes for PAs carried out through FUNBIO.

If it is decided that such a representation post should be created, its costs should be added to the other costs projected for carrying out FUNBIO's functions under the scope of the Project.

7. Costs

The direct and indirect costs stemming from the internalization of ARPA within FUNBIO would be covered by Project resources as determined during the appraisal. Indirect costs will be calculated in the form of *cost sharing*. Costs will be reassessed periodically, in terms of normal adjustments during an implementation phase, as well as initially unforeseen needs.

The initial forecast for FUNBIO's expenses with regard to ARPA includes the need to expand its technical–administrative apparatus and its physical installations and equipment, as well as to contract banking services and additional specialized services. These improvements are required in order to deal adequately with the new functions and responsibilities stemming from FUNBIO's participation in the Project. The initial forecast also includes costs related to the involvement of FUNBIO's Board and its Technical Commissions in the Project.

8. General Guidelines for Development of Component 3

Among the activities to be carried out by FUNBIO is the responsibility of executing Component 3, which calls for the maintenance (Financial Sustainability) of PAs supported by ARPA. To that end, FUNBIO should carry out the following activities: creation and management of an endowment fund consisting of resources from different donors; performance of studies on financial and legal instruments; and implementation of pilot projects.

8.1 Endowment fund.

The operation of the endowment fund (FAP) is detailed in a specific document. (See Annex 12.)

8.2 Studies and pilot projects.

FUNBIO, as established in the Institutional Arrangements, will submit to the PCU, a proposal for carrying out studies and projects. This unit shall forward it to the Program Committee for approval. If the proposal is fully approved, it will be sent to FUNBIO so that implementation may begin.

The studies and pilot projects to be performed as part of Component 3 will be aimed at defining and testing more appropriate mechanisms of generating revenue for the PAs, including: identification and adjustment of legal and tax instruments available for this purpose; participatory design of income-generation programs; design and implementation of 10 pilot projects; negotiation of income-generation agreements; and training and workshops.

The contracting of studies and pilot projects will be carried out by FUNBIO, with ARPA resources, following the selection and contracting procedures usually practiced by FUNBIO. The executors of these studies and pilot projects may be individuals and public or private corporations, for-profit or nonprofit.

9. General Guidelines for Procurement

9.1 Regulations and procedures.

As a rule, all procurement using GEF grant funds and their yields must meet stipulations in the document *Guidelines for Procurement under IBRD Loans and IDA Credits*, published by the World Bank. These regulations shall prevail for all agents who are beneficiaries of Project resources. These operations and those related to other financial management procedures also should be in accordance with provisions in Brazilian legislation.

Mechanisms and responsibilities for the technical specifications of goods to be purchased and of services to be contracted should be defined. Legal forms of transferring goods to supported PAs also should be indicated and included in relevant legal instruments. These and other procurement procedures foreseen in approved POAs, through FUNBIO, are detailed in the Operational Manual of the Project.

9.2 Eligible expenses and activities subject to support.

ARPA resources, under the management of FUNBIO, may be used for: (a) payment of salaries to complementary staff; (b) contracting of consulting services by individuals or public or private corporations, for-profit or nonprofit; (c) payment of current expenditures, that is, expenditures for office materials, supplies, transportation, and travel; (d) payment of operational expenditures; (e) construction of civil works; and (f) purchase of priority goods and equipment.

The activities that may be financed using these resources, provided they are called for in the POAs approved by the Program Committee, are:

- The development of studies, data collection, and refinement of methodologies that support the identification and selection of new PAs in the Amazon region, based on their importance and representativity from the standpoint of regional biodiversity, as well as for defining the eligibility criteria for the financing of state and municipal PAs

- Surveys of the land tenure situation of the PAs to be created and of already existing protected areas, as well as the definition of legal strategies for land tenure regulation

- Environmental diagnostics of the new PAs to be established

- Public consultations with specialists and local populations of the PAs, regarding the strategies designed

- The preparation, review, implementation, and monitoring of management plans for protected areas

- The institution of environmental education programs for communities associated with PAs, as well as the carrying out of dissemination, mobilization, and training activities in communities located in buffer areas

- The implementation of physical infrastructure (such as the installation of signs, the opening of trails, the implementation of enforcement and surveillance bases, the implementation of visitor centers and lodging for researchers, among others), definitive physical protection actions (such as surveillance plans and fire fighting), and the purchase of equipment for PAs to be established or consolidated

- The performance of studies and the development of pilot projects for the preparation of strategies and mechanisms that ensure the financial sustainability of the PAs

- The implementation of projects that integrate conservation and sustainable development for the benefit of communities residing in PAs and their buffer areas

- The refinement of methods, the performance of data collection activities, and the development of data processing and dissemination systems to support the monitoring and buffer areas of PAs

- The design and carrying out of training activities for professionals involved in and relevant to the achievement of Project objectives, such as staff of protected areas, FUNBIO, and government agencies that are directly involved

- The development of strategies to attract resources for the Project and for the financial sustainability of protected areas, including the feasibility of possible economic activities in units of indirect use

- Improvement of conditions in and the management of buffer areas, including an increase in activities for the sustainable use of natural resources existing there

- Hiring of qualified staff to achieve proposed objectives and targets

10. Financial Management Procedures

In order for its performance in the Project to be supervised by the World Bank and other donors, FUNBIO should submit, by the respective deadlines, the following documents regarding its participation in the Project:

- *Annual Operating Plan (POA).* The POA presents the specific objectives that are meant to be achieved the following year, with a detailed description of the activities FUNBIO will carry out during the corresponding year. (Note: The POAs of supported PAs or participating government agencies are not included here.)

- *Hiring and procurement plan.* This will be prepared by FUNBIO, in accordance with the procurement anticipated in the POAs approved by the Program Committee, to be carried out by FUNBIO. It also includes procurement needed for FUNBIO's involvement in the Project.

- *Semiannual progress reports.* These should report on the level of achievement of the physical and financial targets of FUNBIO's participation in the Project during the previous semiannual civil period. These reports should not be confused with the progress reports to be prepared by the Brazilian government in the implementation of the Project's objectives.

- *Final reports and submission of accounts* regarding FUNBIO's participation in the Project.

ANNEX 12

PROTECTED AREAS ENDOWMENT FUND (FAP)

The overall objective of the Amazon Region Protected Areas Project (ARPA) is to expand and consolidate protected areas in the Amazon region of Brazil. The primary long-term goal is to increase areas under strict protection, such as parks and biological stations, by establishing up to 41 million hectares under protection. This represents an increase of 28.5 million hectares over the 12.5 million hectares of tropical forest currently under strict protection in the Amazon region. A 10-year program would be required to achieve this long-term goal, the first phase of which would be supported by the proposed project (Phase 1). Phase 1 objectives and activities are described in section A in the main text, and in Annexes 1 and 2.

One of the main objectives of Phase 1 is to establish a financial mechanism that can provide for the long-term financial sustainability of the strictly protected areas (PAs) to be consolidated under the Project. It also would provide long-term funding for selected "sustainable use" protected areas (RESEX). The mechanism proposed to deliver this solution is an endowment fund (FAP), which would be capitalized at a level sufficient to provide investment income that would cover a portion of PA and RESEX annual recurrent costs over the long term. The remaining recurrent costs (mainly for core PA personnel and basic utilities) would be covered by the government of Brazil. On average, annual recurrent costs to be covered by FAP are estimated to be US$200 thousand per "strict protection" PA and US$50 thousand per Extractive and Sustainable Use reserve. The types of eligible expenditures are described below. Average annual recurrent costs to be covered by the government of Brazil are estimated at US$50 thousand per year; these expenditures, as noted, are mainly for core PA personnel (such as the PA Director) and basic utilities[4]. Only selected PAs and RESEXs would be eligible for funding under this mechanism. The selection criteria are described in Annex 2, paragraph 3.1.

1. FAP Implementation Arrangements

To manage the FAP endowment fund efficiently and effectively, the existing Brazil Biodiversity Fund (FUNBIO) has been selected. FUNBIO is an independent, private, nonprofit corporation that was established and funded in 1996 under the GEF Pilot Phase (US$20 million grant from GEF, US$10 million from other domestic and international partners). As designed, and now with over five years of implementation experience, FUNBIO is operating under the best practices stated in the GEF's Evaluation of Experiences with Conservation Trust Funds (1998). Although FUNBIO's design and objective was focused initially on stimulating private sector participation in environmental management and conservation, the corporation has played an important role since inception in helping to shape the government of Brazil's environmental agenda. Nevertheless, FUNBIO will need to strengthen its current management structure to establish and manage the FAP fund.

To implement the FAP component, FUNBIO will maintain its existing institutional design, which is based on the terms of a World Bank operation TF 28310. The basic structure under this first Bank operation includes a corporate Board, several technical and/or advisory committees with

[4] These average annual recurrent costs per PA/RESEX are estimated based on the existing financial projections/model. The costs may be revised slightly as a result of the revision of the financial projections/model currently underway.

oversight of core operational and administrative functions, and a contract with an internationally selected asset manager that is responsible for investment management of FUNBIO's financial capital. The selection of the asset manager and the definition of investment management guidelines have been carried out in accordance with Bank guidelines and supervision requirements. At the operational level, FUNBIO maintains an Executive Director and a cadre of well-qualified staff to manage operational, administrative, and financial assignments, including financial reporting and auditing tasks required under the TF 28310. Routine accounting has been outsourced to a reputable accounting firm, which provides FUNBIO's financial manager with the information required for satisfactory completion of financial management reports. In addition, in accordance with the original GEF agreement, FUNBIO is audited annually by a reputable firm, most recently Deloitte Touche Tohmatsu. Audit reports reviewed by Bank staff have been favorable. In addition, the Bank has carried out a procurement and institutional capacity assessment of FUNBIO, and has made recommendations regarding additional staffing requirements necessary to carry out its responsibilities under Phase 1 of ARPA and for the FAP fund.

2. Responsibilities of FUNBIO

As the managing institution of the FAP fund, FUNBIO will provide the technical and administrative infrastructure, contracting specialized services and developing appropriate strategies to:

- Manage FAP capital proceeds, including the opening of specific accounts to deposit, apply, and utilize these resources
- Oversee compliance with pertinent legal and contractual obligations as well as regulations and procedures required by donors[5], with regard to the fund's financial and accounting aspects
- Specify regulations and operational procedures for the use of FAP resources, to be observed and followed by executing units; and indicate the management and financial monitoring documents to be prepared by executors
- Supervise, monitor, and control compliance with these regulations and procedures
- Manage the charges, fees, and conditional ties related to FAP contributions
- Prepare and present to relevant authorities, within and outside FUNBIO, reports and balance sheets on the use and application of FAP resources
- Periodically contract independent auditors
- Establish policies, procedures and general principles for the investment of Fund capital proceeds, including entering into and supervising contracts with specialized firm(s) for the same as needed.
- Supervise, monitor, and evaluate the contracted asset manager(s)

[5] Note that these should be in accordance with the internal regulations that guide FUNBIO's activities.

3. Characterization of the FAP Fund

The FAP fund will be constituted as an endowment, with the primary objective of maximizing income and preserving the capital over the long term. Fund administration and recurrent costs for PAs management under Phase 1 would therefore be covered primarily by investment income generated by the prudent financial management of FAP endowment capital.

To achieve this objective, agreed with the Bank, FUNBIO will:

- Enter into contracts with investment management specialists who can advise FUNBIO regarding prudent asset allocation strategies consistent with investment guidelines agreed with the Bank
- Enter into contracts with internationally qualified asset managers that can provide efficient and effective custodial services at a relatively minimal cost
- Develop and implement a fundraising strategy, in collaboration with Phase 1 initial and follow-on donors, with the objective of identifying new donors, private sector partnerships, and/or other mechanisms to attract additional funding for the endowment.

4. Decision-Making Structure

Under FUNBIO's existing Board structure, a Technical Commission will be responsible for oversight of the FAP fund's day-to-day management. Another Technical Commission, already existing, is responsible for the oversight of ARPA's day-to-day management. Both Commissions fall under the general responsibility of FUNBIO's Executive Director. The latter Technical Commission will include members from the ARPA Phase 1 Program Committee (including representatives of the Brazilian government), FUNBIO Board representatives, and donor representatives. The Executive Director may recruit a technical consultant and/or additional staff for the fund as needed in order to effectively and efficiently manage the fund's operations.

5. Fund Capitalization and Management of Endowment Capital

For the purpose of initial capitalization of the FAP fund, GEF resources will be disbursed on a 1:1 basis (US$1 from the GEF for each US$1 from other donors), following verification of deposits by other donors (such as, WWF, KFW, and Brazil Connect). Once the donor's deposits are confirmed, the GEF will disburse its funds. GEF's initial capital allocation has been estimated at US$14.5 million. Of the GEF initial capital allocation, US$2.5 million will be disbursed to the "sustainable use" PAs subaccount, and US$12 million will be disbursed to the "strict protection"PAs subaccount. This rule will be spelled out in the FAP Operational Manual.

Detailed financial projections, prepared by a Goldman Sachs expert, form the basis for estimated annual costs to be covered by the FAP fund's investment income, as well as required capitalization, and capital asset allocation requirements. Summary results from these projections are presented below; the detailed tables are included with project files. The results demonstrate that providing for the long-term sustainability of the PAs expected to be consolidated under Phase

1 requires a fund capitalization on the order of US$50 million[6]. Since this represents considerably more than the capital currently available for FAP, the following arrangements have been agreed to among the initial donors: (a) a Letter of Intent reflecting the broad commitments of the respective donors to the overall program will be signed prior to the fund's initial capitalization; (b) during Year 1 of Phase 1 implementation, a fundraising strategy will be developed to address the current estimated funding gap; and (c) during Year 1 of Phase 1 implementation, a process for selecting priority PAs to be funded by FAP investment income proceeds will be defined as a contingency plan in the event that the fundraising strategy fails to address the full extent of the aforementioned funding gap. As noted above, the endowment capital will be managed with the primary investment objective of long-term capital preservation. The secondary objective will be to generate sufficient investment income to cover the aforementioned annual PA recurrent costs. To meet these objectives, a specific asset allocation strategy, consistent with investment guidelines agreed with the Bank, will be defined by FUNBIO and reflected in the FAP Operational Manual (described below). Since financial projections and investment allocation models are inherently imperfect predictors of inevitable future market variations, the investment guidelines will include a spending rule policy that will allow FUNBIO a narrow margin of flexibility to utilize a fraction of FAP capital to cover potential shortfalls in investment income during a given year. The details of this policy will be reflected in the FAP Operational Manual.

6. Origin of Resources

The assets of the FAP fund may be comprised of:

- Donations of goods and rights
- Goods and rights stemming from asset revenue
- Goods and rights stemming from activities carried out with its support
- Other sources

Possible revenue of the Fund consists of:

- Income derived from its domestic and foreign investments and financial applications
- Donations made by individuals or public or private corporations, whether domestic or foreign, and by international agencies, expressly allocated to the Fund.

Mechanisms should be sought which facilitate donations from foreign partners and other resources to optimize asset management in different currencies. With this objective, accounts may be opened for the Fund both in the United States and in Europe.

7. Eligible PAs and RESEXs

The selection of PAs to be eligible for funding from FAP investment income shall be made according to defined criteria and weights, including: (a) the existence of minimum infrastructure and staff; (b) the existence of management plans that are concluded or under preparation; (c) the GOB annual budget allocation; (d) the constitution of the Management Council(s); (e) the degree

[6] Estimated on the basis of the existing financial projections/model. The final results may vary based on the revision of the financial projections/model currently underway. Once completed, the summary results will be reflected in the referenced table.

of threat (human pressure); and (f) accreditation in the National Register of PAs. The full set of criteria will be included in the FAP Operational Manual.

For Extractive and Sustainable Use protected areas, the eligibility criteria include the following: (a) the existence of approved management plans; (b) the existence of Associations that are created and implemented; (c) an updated registry of inhabitants; (d) a Management Council installed and operational; (e) Commissions of environmental protection, health, and education constituted and in operation, within the structure of the Associations; (f) registration in the National Conversation Units Registry; (g) POA prepared on the basis of the approved management plan; (h) a minimum forestry cover of 90 percent; (i) creation before December 2000 or after January 2001; (j) located within the project area (Polygons). The full set of criteria will be included in the FAP Operational Manual.

8. Eligible Expenditures

FAP investment income will be used to cover recurrent costs for PAs and RESEXs that meet the eligibility criteria referenced above. Eligible recurrent costs include: protection activities (fuel, firebreaks, maintenance of equipment used for enforcement, etc.); training activities; and monitoring and support to the operation of the Management Councils. The types of expenditures eligible for coverage by the Fund's resources, defined in a contract signed with donors, should be approved periodically by the Program Committee based on POAs submitted by their executors. These expenditures will be detailed in the FAP Operational Manual. The POAs themselves will be prepared by the PAs and RESEXs eligible to be supported with FAP investment income proceeds. Approval of POAs will follow the same procedures adopted for the implementation of other components of the Project.

All procurement executed with GEF resources under the Project, whether as part of or separate from FAP, will be carried out in accordance with the *Guidelines for Procurement under IBRD Loans and IDA Credits*, published by the World Bank. These regulations shall prevail for all agents who are beneficiaries of Project resources.

9. Asset Manager(s)

To ensure prudent financial and investment management of the endowment capital, as noted above, FUNBIO will: (a) enter into a contract with an investment expert qualified to assist with the definition of an asset allocation and overall investment strategy consistent with the investment objectives described above; and (b) enter into a contract with an internationally qualified asset manager, which will be responsible for providing custodial services for the endowment capital. Both contracts, as well as the roles and outputs of the investment expert and asset manager, will be consistent with Bank investment and procurement guidelines described above. Both contracts will be duly reflected in the FAP Operational Manual.

The investment expert's responsibilities may include creation of specific investment portfolios; provision of information to facilitate the monitoring of investment results and the planning of future POA requirements; systematic performance of market research and analysis in order to identify and monitor investment alternatives; identification of long-term strategies and short-term tactics for resource applications; and provision of analysis and interpretation of investment reports submitted by the asset manager(s).

The responsibilities of the asset manager(s) may include:

- Provision of custodial services, including liquidations of purchases and sale of papers, preparation of notes for all transactions, collection of dividends, monthly income and capital statements, as well as maintaining appropriate insurance against negligence, fraud, accidental damage, and other types of damage.

- Maintaining correspondence with FUNBIO by means of communications, written reports, and periodic meetings (as needed). Reports should include evaluations, income and capital statements, and, less frequently, analyses of applications, performance assessed according to established reference values, market perspectives, evaluations, and summaries of transactions made.

9.1 Criteria for selection of asset managers. The criteria established for the selection of asset managers may be grouped into three general categories:

Investment capacity

- Demonstrated skills and consistent work to reach or exceed established reference values; flexibility; experience with balanced investment portfolios; independent research ability; organization and control

- Representation and investment activities in Brazil; research ability; acuity in dealing with the proposal; and quality of presentation

- Response capacity regarding the proposed investment, in terms of creativity, flexibility, and exactness; and ability to deal with the Fund's specifications

- Costs in relation to capacity and efficiency

Experience and reputation

- Years of experience, clientele, types of funds administered

- Reputation in the market, clientele, references

- Quality of management and of technical staff, in terms of: experience; ability to maintain competent professionals; individual workload, within reasonable limits; good client relations; good research capacity

- Environmental and social responsibility;, demonstrating the ability to meet the client's demands in this regard

- Experience in stock investments of the amount estimated to cover the Project's needs throughout its life span

Security and stability

- Prudent; professional investment philosophy; history with no records of any type of condemnation by the regulatory authority regarding activities; ensure protection of assets; quality of associates
- Responsibility and reliability in protecting assets and respecting regulations
- Capacity and flexibility in risk administration, limits utilized, ability to diversify

9.2 Selection process for the asset managers.

The selection of the asset manager(s) will be consistent with Bank procurement guidelines. FUNBIO should be assisted by the investment expert described above in preparing a preliminary list of potential Asset Manager candidates. FUNBIO will implement the remaining steps in the selection process, including request for proposals, evaluation of proposals, and preparation of a final bid evaluation report. The results of the evaluation report will be submitted to the FAP donors for their information and "no objection." Subsequently, FUNBIO will negotiate the custodial services contract with the selected Asset Manager(s), and will submit the final negotiated contract to the donors for their information and "no objection." The final, signed contract will be a condition of disbursement of funds to the FAP account.

10. Financial Management System

FUNBIO will establish a specific financial information system for FAP so that accurate reports on the complexity, diversity, and volume of FAP operations may be provided readily and in a timely manner to the donors and other interested parties. FUNBIO will draw on its current financial management experience and system(s) to develop a system for FAP operations. As needed, subaccounts will be established for each donor, to ensure accurate accounting regarding the utilization of a given donor's resource allocation[7].

Independent auditors will be hired to perform external audits of accounting statements and the balance sheet of the fund, in accordance with generally accepted accounting principles. Audit reports will note compliance with donors' regulations and practices, as well as separate opinions on the SOEs of audited projects.

The audit reports of the fund will consider separately the accounts, statements of expenses, and statements of resources used in the maintenance of PAs, carried out through partner organizations. An analysis of overall financial management, control mechanisms, and demonstrated efficiency also will be performed. The annual report will consider the operations of the asset manager. Six months after the end of each fiscal year, the results of financial audits, together with copies of balance sheets, should be available to FUNBIO's Board and/or Technical and Advisory Committees, as well as donors and other relevant interested parties.

[7] Brazil Connect, for example, will allocate US$1.5 million to the FAP capital account to support recurrent costs for RESEXs. FUNBIO will then establish a separate operational subaccount for the purpose of disbursing the associated investment income to RESEXs and accurate accounting of the same.

In order for its performance to be monitored by the Bank/GEF and other donors, the use of FAP resources will require the preparation of the following documents, to be submitted within the respective deadlines:

Annual Operating Plan (POA). The POA presents the specific objectives to be achieved the following year, with a detailed description of the activities to be carried out during that year.

Procurement planning. This should be included in the POA and should contain all procurements anticipated for the following year.

Semiannual progress reports. These should report on the level of achievement of FAP's operational physical and financial targets during the previous semiannual period.

Financial reports and submission of accounts in accordance with Bank and other donors' guidelines.

11. Operational Manual

A draft table of contents for the FAP Operational Manual is presented below. The final manual will be a condition of grant effectiveness.

Background

Structure of FAP
1. Mission and Objectives
2. Program components
3. Selection criteria for eligibility of PAs that will enter the program
4. Description of FUNBIO
5. Organizational chart of FUNBIO and where FAP is located
6. Rules for the Technical Commission of FAP
7. Responsibilities of the FAP Director
8. Responsibilities of the manager and director of PAs
9. Conflicts of interest and how to resolve them

Management and use of the financial resources
1. Financial management of the capital (including spending rules)
2. Distribution of the resources for the Project
3. Eligible activities
4. Emergency funds
5. Fundraising strategy

Procedures to operate the program
1. Project cycle and timetable
2. Requirements to approve the Annual Operational Plans
3. Reports
4. Timetable for reports and disbursements to the PAs

Monitoring and Evaluation
1. Importance of the M&E program

2. Technical reports
3. Role of management plans in M&E program

Administrative procedures

1. Purchases
2. Contractual services
3. Complementary staffing
4. General accounting systems
5. Registry of accounts
6. Bank accounts
7. Disbursements
8. Budget planning
9. Transfer
10. Inventories
11. Bookkeeping
12. Auditing procedures

Government contributions to recurrent costs of PAs
Annexes (including investment expert and asset manager contracts)
Form – POA
Form- Bi-annual reports

ANNEX 13

CRITERIA TO PRIORITIZE SITES FOR THE CREATION OF PROTECTED AREAS AND CHARACTERISTICS OF CANDIDATE AREAS

1. Background

The selection of priority areas for biodiversity conservation in the Brazilian Amazon was first attempted in 1990, when leading biologists convened in Manaus to develop the first map delineating priority conservation areas for the Amazon basin as a whole.[8] The map generated from the Manaus workshop indicated areas of high biological richness and/or endemism, based on a synthesis of known information regarding the geographic distribution of major biological groups. The workshop also pointed out major information gaps, particularly in the less accessible interfluvial areas. As Geographical Information Systems (GIS) technology was still in its infancy in 1990, the range of overlays that could be incorporated to generate the final map was limited. Furthermore, the criteria for selection of areas were strictly biological and did not take into account the rapid, human-induced changes that had begun to impact widespread areas of the region during the previous decade. Finally, the Manaus workshop took place before recent advances in the field of conservation biology, which provides evidence for the efficacy of conservation at larger scales such as ecoregions.[9] Commonly referred to as ecoregion-based conservation, this large-scale approach is designed to incorporate key ecological processes (such as migrations and hydrological cycles) and to protect against rare or unexpected disturbances (such as wildfires destroying large areas of Amazon forest).

Despite these limitations, the map generated by the 1990 Manaus workshop provided a critical baseline for the priority-setting exercise on which this project is based. ARPA's geographical priorities are based on PROBIO (National Biodiversity Program), a GEF-supported project launched in 1996 under the auspices of Brazil's Ministry of Environment. As part of this project, leading national scientific organizations, with the collaboration of scientists and institutions worldwide, developed comprehensive databases of information relevant to biodiversity. With the use of GIS, the project generated cartographic overlays showing the geographic distribution of: (a) ecoregions;[10] (b) major biological groups; (c) existing protected areas (public and private); (d) other areas designated for low-impact use (such as indigenous lands); (e) current land use, soil type, and topography; and (f) existing and planned infrastructure (such as roads, railroads, and waterways). The actual process of priority setting takes place in workshops that convened both biological and socioeconomic experts for each of Brazil's major biomes.

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[8] Rylands, A.B., O. Huber and K.S. Brown, Jr. 1990. *Workshop 90: Áreas Prioritárias para a Conservação da Amazônia. Mapa e Legenda, Escala 1:500.000.* Instituto Brasileiro do Meio Ambiente e Recursos Naturais Renovaveis (IBAMA), Brasilia; Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus; Conservation International, Washington, D.C.

[9] Ecoregions are large biological units that share similar biological and physical features, usually at an intermediate scale between biomes and ecosystems. Ecoregion-based conservation has been adopted as the conceptual framework for conservation strategies by major environmental NGOs such as the World Wildlife Fund and the Nature Conservancy. The major ecoregions of Latin America were mapped by the World Wildlife Fund and the World Bank (Dinerstein, E., D. M. Olson, D. J. Graham, A. L. Webster, S. A. Primm, M. P. Bookbinder, and G. Ledec. 1995. *A Conservation Assessment of Latin America and the Caribbean.* The World Bank/World Wildlife Fund, Washington, D.C.).

[10] In 1998, WWF reevaluated the ecoregion limits for the region defined by Dinerstein et al. (1995). This reevaluation defined 23 ecoregions, which largely conform to the region's major river basins.

The priority-setting workshop for the Amazon took place in Macapa, Amapa, during September 15-21, 1999. The workshop and prior preparations were coordinated by a consortium of NGOs, including the Socio-Environmental Institute (ISA), the Amazon Working Group (GTA), Conservation International of Brazil, the Institute for Man and Environment in the Amazon (IMAZON), the Institute for Environmental Research in the Amazon (IPAM), and the Institute for Society, Population and Nature (ISPN). A total of 226 participants were involved in the workshop (see complete list of participants and affiliated organizations at http://www/socioambiental.org/bio/index.htm), including representatives from governmental agencies (federal, state, and municipal), nongovernmental organizations, social movements, public and private research institutions, businesses, and press. Among the scientists present were international and national specialists widely recognized for their biological and socioeconomic expertise in the Amazon region.

The workshop convened information on 12 thematic groups; six of the groups focused on major biological taxa: plants, mammals, birds, reptiles and amphibians, invertebrates (primarily insects), and aquatic biota (primarily fish). Three additional groups focused on present and potential threats to conservation, including current land uses, existing and planned infrastructure, and highly threatened ecosystems that provide critical ecological services. The final three groups focused on opportunities for conservation: existing protected areas, areas designated for indigenous peoples and other traditional populations, and areas appropriate for low-impact businesses such as ecotourism. Coordinated by a leading expert in the corresponding thematic area, each group generated a map showing areas of critical importance. Gap analysis was used to designate areas of likely importance where further field research is needed.

A regional analysis focusing on seven divisions defined by few main watersheds was overlaid to identify and categorize areas of biological importance according to the degree of overlap of priority areas for each biological taxon defined on the previous day. The highest degree of importance was given to areas with the greatest degree of overlap (four or more taxa), the second highest to areas overlapped by three taxa, and the third highest to areas overlapped by two taxa. Other areas insufficiently known but considered likely to be biologically significant also were mapped. Using these strictly biological criteria, a total of 524 areas were nominated as priorities for conservation.

In addition to biological criteria, the areas identified as significant for their threats or environmental services also were used to add a socioeconomic dimension to the priority setting exercise. Degree of importance for environmental services, "degree of stability" or connectivity (that is, insertion within or linkage to existing protected areas or indigenous lands), and "degree of instability" (that is, proximity to threats such as infrastructure development or advancing agricultural frontier) also were used in the priority setting process.

The results of the thematic and regional groups were synthesized onto a single map showing priority areas for conservation in the Brazilian Amazon (see map of entire region, with links to more detailed subregional maps, at: http://www/socioambiental.org/bio/index.htm). For each of the priority areas selected, the workshop participants then provided detailed information on its location, principal biological characteristics, principal environmental services generated, degree of connectivity, proximity to threats, and recommended actions (protection, recuperation, sustainable use of natural resources, need for further studies, etc.). The results of the Macapa workshop provided the conceptual foundation for the definition of priorities for the creation of protected areas during the first phase of the Project (years 1–4).

2. Criteria to Prioritize Sites for the Creation of Protected Areas in ARPA

The Project will identify priority polygons for the creation of new protected areas[11] based on the results of the Macapa workshop described above, with additional landscape gap analysis whenever necessary.

The establishment of regional orientation is fundamental for the definition of the decision-making process on land use in all administrative scales (municipal, state, or federal), especially in complex and extremely diversified regions like the Brazilian Amazon. The creation of a new protected areas should be the result of consensus among the various stakeholders. Therefore, orientations will be, whenever possible, practical and quantitative. They also should be flexible so that, without losing site of the main project objective, they will allow for the incorporation of municipal and state land use planning initiatives. The basic premises, listed below, will fundament the selection of areas for the creation of new protected areas (PAs) in this project:

- A system of PAs should be a mosaic of different categories, and never be composed only of "strict protection" PAs.
- Selection of areas for the establishment of new PAs should follow, primarily, the recommendations of the PRONABIO workshop.
- The areas recommended at the PRONABIO workshop should be, whenever necessary, complemented by new areas selected through landscape representativity analysis in each ecoregion.
- Areas recommended by the states' Ecological and Economic Zoning processes will be incorporated into the Project after overlays with PRONABIO and complementary representativity analysis results in each ecoregion.
- Large areas, containing large populations of plants and animals, are more adequate than small areas containing small populations of plants and animals.
- Areas that are near each other are better than areas separated by considerable distances.
- Continuous habitats are preferable than fragmented habitats.
- Interconnected habitats are more desirable than isolated habitats.
- Blocks of habitat that are not sectioned by roads or that are difficult to be reached by humans are preferable.
- The ideal minimum-area for the creation of a new "strict protection" PA should ideally not be inferior to 500,000 hectares.
- The categories of the new PAs will be defined after field studies, and after consideration by all stakeholders (local population and government).
- Ecoregion analysis also will identify areas for the creation of "sustainable use" PAs (RESEX and RDS), combining representative analysis with demands from local communities.

The methodology proposed for the selection of areas by ARPA is based on the analysis of each ecoregion, with the objective to protect each landscape unit in the ecoregion within "strict protection" PAs.

The polygons selected by each working group during the PRONABIO workshop were classified by group participants according to degree of importance:

[11] For the purpose of this project, the term "protected areas" includes the following categories defined in the Law 9985 of July 18, 2000, that established the SNUC: Parks, Biological Reserves, Ecological Stations, Sustainable Development Reserves, and Extractive Reserves. Protected areas of these five categories may be established at federal, state, and/or municipal levels.

- Polygons of extreme importance: value 5
- Polygons of very high importance: value 4
- Polygons of high importance: value 3
- Polygons insufficiently known but of probable importance: value 2
- New polygons identified by the regional groups: value 1

Polygons were also overlaid by the human disturbance summary map, which was generated by the combination of the human disturbance map and the map of human pressure by municipality (generated by social and economic data). This overlay was also classified in five categories of pressure:

- Over 85 percent
- Between 85 and 65 percent
- Between 64 and 40 percent
- Between 39 and 20 percent
- Below 20 percent

A value was then attributed to each one of the categories:

Table 13.1

Category	Percent overlay	Value
a)	Over 85	5
b)	Between 85 and 65	4
c)	Between 64 and 40	3
d)	Between 39 and 20	2
e)	Below 20	1

The values for degree of importance and for percent overlay were added and a single value was obtained. This result was then used to establish priorities, by urgency categories:

Table 13.2

Single value	Urgency category
Between 10 and 8	Very high
Between 8 and 6	High
Between 6 and 4	Medium
Between 4 and 2	Low

Therefore, for each area that overlaps (PRONABIO polygons and human disturbance polygons), there is a corresponding urgency category.

An additional analysis of the polygons selected by the urgency categories was carried out so that biodiversity representativity criteria could be incorporated. Because there are very little data on biodiversity distribution in the Amazon, a landscape-representation unit map (URP) was developed as a model for beta diversity distribution, using physical as well as biological characteristics (geomorphology and vegetation types).
The representativity data used were:

1. Local landscape richness

2. Regional landscape richness

Landscape richness was divided hierarchically into two categories (local and regional) because we believe that polygons with 10 URP of forest vegetation have, probably, a lower biodiversity richness than another polygon with a combination URP of different vegetation types, such as forests, savannas, *campinaranas*, and others.

3. Landscape diversity
4. Size of polygon

A value was then attributed to each one of these variables:

Table 13.3 Local Landscape Richness – Number of URPs Present in the Polygon

Local richness	Number of URPs	Value
a)	1–15	1
b)	16–31	2
c)	32–47	3
d)	47-65	4

Table 13.4 Regional Richness – Number of URP Categories in the Polygon

Regional richness	Number of URP categories	Value
a)	1–2	1
b)	3 –4	3

Table 13.5 Landscape Diversity Index (Shannon Index) – Proportion of Area of Each URP Present in the Polygon

Local richness	Diversity index	Value
a)	Less than 1	1
b)	1 – 1,99	2
c)	2 – 2,99	3
d)	Greater than 3	4

Table 13.6 Size of Area (hectares)

Local richness	Classes of area (hectares)	Value
a)	Smaller than 100,000 ha	1
b)	100,000–499,999 ha	2
c)	500,000–1,000,000 ha	3
d)	Greater than 1,000,000 ha	4

All variables, plus the urgency index were added, obtaining a single value (Map 7). The result was then used to establish priorities:

Table 13.7 Prioritization Categories

Single value	Priority category
Between 18 and 15	Very high
Between 14 and 12	High
Between 11 and 9	Medium
Between 8 and 6	Low

The classification does not imply that only the polygons classified as having high priority will be analyzed in this project. All polygons of all categories in all ecoregions will be analyzed. The prioritization categories only enable us to elaborate an order for examining each Amazon ecoregion. Nine ecoregions were prioritized to be analyzed in the first year of the Project (Fig. 1). Despite the fact that the Southwest Amazon ecoregion was not identified as priority, it was included in the Project's first year because the state government is already using ARPA's methodology to identify priority areas for conservation. Therefore, this ecoregion is a priority, even though it does not present any polygon classified as very high priority by the criteria used in the analysis.

During this process, a complementary landscape representativity analysis will be carried out in each ecoregion described below to evaluate if the polygons mentioned above incorporate, in the best possible way, the diversity of landscapes.

The results from the Ecological and Economic Zoning processes in the Amazonian states will be analyzed and considered by this project only if they coincide with the PRONABIO polygons or with the polygons identified by the complementary landscape analysis.

In summary, the proposed protected areas will be located within the polygons mentioned above or in the new polygons identified by the complementary landscape representativity analysis.

The above-mentioned polygons, and the ones identified by the complementary analysis, will be evaluated according to the following priorities:

- Priority 1: areas recommended by the PRONABIO workshop and by states' Ecological and Economic Zoning, concomitantly.
- Priority 2: areas recommended by the PRONABIO workshop (validated or not by the representativity analysis).
- Priority 3: areas recommended by the complementary representativity analysis and by states' Ecological and Economic Zoning, concomitantly.
- Priority 4: areas recommended by the complementary landscape representativity analysis.

3. Compatibility with Other Government Programs

Priority areas were overlaid with information from other government programs, such as National Resources Policy Project (NRPP), Demonstration Projects (PDA), PROECOTUR, and by development "axes" defined by the *Brasil em Ação* government plan.

Integration of these programs with ARPA is fundamental to reach project goals. The implementation of the development "axes"—especially the asphalt of federal highways—implicitly brings the risk of deforestation through new immigration fluxes and the intensification of natural resources exploitation.

Considering past experiences when similar infrastructure projects were implanted in the region, the implementation of the axes defined by the *Brasil in Ação* which prioritize south-north orientation, could result in an unknown flux of social and environmental impact if rigorous mitigating and compensatory actions are not adopted, including the creation of protected areas.

The hypothesis of connectivity loss of the Amazon forest should be avoided at any cost. The creation and consolidation of PAs under this project, at specific sites along development axes, could guarantee forest continuity in the long run.

Programs, such as PROECOTUR and PDA could, on the other hand, work as incentives to communities around the newly created PAs, offering new opportunities and economic alternatives.

4. Characteristics of Candidate Areas

The table below presents a summary of the analysis of socioeconomic data and threats for three regional divisions (Eastern, East Central and Western Amazon) indicating the target areas within each region for the creation of new protected areas.

Table 13.8 Analysis of Regional Target Areas for PA Creation

1. Eastern Amazon Region	
Socioeconomic Importance of the Subregion	**Threats and Control in the Subregion**
This subregion is part of the expanding agricultural front of soybean and cattle ranching. It is highly accessible, and it is currently undergoing rapid landscape transformation. Many financial groups and interests originating from southeastern Brazil migrate from this region into the Amazon region. This large macro-zone incorporates many well-developed areas, where urban-industrial economies are advanced. It also incorporates areas that have been highly degraded due to deforestation and extensive cattle ranching. Production predominates over conservation in this extensive space that forms the southern and eastern Amazon region.	The major threat to biodiversity in this area is the disordered expansion of economic activities occurring since the 1970s. More than 90 percent of the 600,000 km^2 that have already been deforested in the region are located within this area. The most acute problem of this region is the expansion of extensive husbandry, which involves 77 percent of the occupied lands in the region. The exploitation of wood is accelerating the process of deforestation and is causing around 20 percent of the deforestation in affected areas. This activity includes the conversion of forest into grass land using slash-and-burn clearing in areas with *ombrófila* forest (dense and open). Slash–and-burn is common in areas of less than 50 hectares. This

	indicates that small producers are causing deforestation. The lack of agricultural policies is an incentive for small farmers to turn to extensive husbandry as a means for subsistence. To mitigate this problem, the MMA has signed an agreement with the Ministry of Agriculture to promote sustainable agriculture in 20 percent of the open *ombrófila* forest and within over 50 percent of the dense forest in the Amazon region. This agreement will help to rehabilitate areas designated for permanent conservation.
Target Areas	
1. AX-021 (Area: 420,000 hectares) Ecoregion: Madeira/Tapajós Moist Forest State: Rondônia Area of extreme biological importance, with great bird, mammal, reptile, amphibian, and aquatic diversity. This area would connect several indigenous and conservation areas, thus creating a large block of protected areas.	**2. AX-027 (Area: 98,000 hectares)** Ecoregion: Madeira/Tapajós Moist Forest State: Rondônia Located in the Parecis Mountain Chain, this area is highly diverse (mammals, birds, reptiles) and of extreme importance to conservation. This area connects to area AX-021, creating an even larger block of protected area.
3. AX-048 (Area: 31,000 hectares) Ecoregion: Purus/Madeira Moist Forest, Monte Alegre Várzea State: Rondônia Located in the Rio Madeira, this area is of extreme biological importance. There are very few protected areas in flood plain regions, and the aquatic biota in this area are very rich and endangered due to population pressures.	**4. AX-049 (Area: 31,000 hectares)** Ecoregion: Madeira/Tapajós Moist Forest, Monte Alegre Várzea, Purús Madeira Moist Forest State: Rondônia/Amazonas Located at the division between Rondônia and Amazonas states, this area has a high level of diversity, particularly birds, mammals, reptiles, amphibians, and vegetation types. It also complements candidate area number 3.
5. AX-050 (Area: 40,000 hectares) Ecoregion: Purus/Madeira Moist Forest State: Rondônia Bordering Amazon State, this area has a high diversity of flora and fauna. It is considered an area of extreme importance for conservation, especially due to its high aquatic biodiversity. The area would protect a flood plain region, and it forms a block with an existing strict use conservation unit.	**6. BX-001 (Area: 2,476,000 hectares)** Ecoregion: Mato Grosso Tropical Dry Forests State: Mato Grosso This area is very important in terms of environmental services and aquatic biodiversity. The headwaters of major rivers are located in this region, and it has little representation within existing protected areas.

7. BX-008 (Area: 520,000 hectares) Ecoregion: Tapajós /Xingu Moist Forests State: Mato Grosso This area is of high biological importance, especially for birds, reptiles, and amphibians. The site is next to an indigenous territory, which forms a large block of conservation unit.	**8. BX-064 (Area: 2,390,000 hectares)** Ecoregion: Mato Grosso Tropical Dry Forests, Madeira/Tapajós Moist Forests State: Mato Grosso Area of extreme importance for the conservation of biodiversity. It has a high diversity of mammals and birds. It contains the headwaters of the Aripuanã River, and it connects four indigenous territories, creating one of the largest blocks of protected areas.
9. JU-067 (Area: 65,000hectares) Ecoregion: Iquitos Várzea, Southwestern Amazon Moist Forests State: Acre Ecoregion of extreme biological importance, with high plant and mammal diversity. The protection of aquatic resources in this area is imperative.	**10. JU-068 (Area: 45,000hectares)** Ecoregion: Southwestern Amazon Moist Forests State: Acre Area of extreme importance for biological conservation, as well as for the protection of aquatic resources and habitats. This area is highly threatened by the opening of a highway to the Pacific.
11. TO-004 (Area: 1,701,000 hectares) Ecoregion: Tocantins-Araguaia/Maranhão Moist Forests State: Maranhão Despite being located inside an area of Environmental Protection (APA), this important area is not protected. APAs constitute a very "loose" category of direct use conservation unit, and high human pressure on this site is causing habitat destruction. It is an area of extreme biological importance, with high bird, mammal, reptile, and amphibian diversity.	**12. TO-012 (Area: 123,000 hectares)** Ecoregion: Tocantins-Araguaia/Maranhão Moist Forests State: Maranhão Area of great relevance for environmental services, and of extreme importance for biodiversity conservation. It is located in a highly occupied area, adjacent to three indigenous territories. It is a strict use conservation unit.
13. TO-042 (Area: 671,000 hectares) Ecoregion: Mato Grosso Tropical Dry Forests, Xingu/Tocantins-Araguaia Moist Forests State: Tocantis/Mato Grosso/Pará Area of extreme biological importance, located next to a strict use and a direct use conservation unit. Its importance for the conservation of aquatic systems is recognized, as well as its highly important environmental services. It also has a high degree of plant and bird diversity.	**14. TO-051 (Area: 933,000 hectares)** Ecoregion: Tocantins-Araguaia/Maranhão Moist Forests State: Pará Area of high bird diversity and endemism. It is renown for its biological importance, representing one of the last remnants of primary forests in the region.

2. Central Amazon Region	
Socioeconomic Importance of the Subregion	**Threats and Control in the Subregion**
This subregion is crossed by the new development corridors, which extend from the heart of the state of Pará to the future highway connecting Porto Velho and Manaus. This implies that the region is likely to experience rapid economic growth based on activities such as soybean production. Soybeans are transported to export markets using the Madeira River. It is expected that soybean production may eventually occupy the areas currently used for cattle ranching along the Cuibá-Santarém highway. In this region, the amount of forested area and indigenous land is considerable, thus, the region is highly exposed to further expansion.	Potential threats in this area are likely to materialize over the short term. The most important threats are deforestation and settlement in the conservation areas and indigenous lands. These are common threats known in the southern and western Amazon region, and in recent years these threats are expanding to the central region. Political actions focus on promoting and facilitating conservation efforts, and on contributing to complementary production systems. These should be attained through the following measures: (a) mainstreaming economic activities and strengthening urban centers in the southern and eastern Amazon region; (b) implementing ecological zoning (ZEE) along the corridors, supported with monitoring, evaluation, and control; (c) demarcation of indigenous lands; (d) developing a new model of protection for PAs, with the support and participation of surrounding populations; (e) incentives for products generated by traditional populations, taking advantage of the economies of scale generated by the development corridors; and (f) developing sound environmental management in urban areas within these corridors. Special protection will be provided for the extensive forested areas in the northern region of Pará, between the corridors under development in the states of Amazonas and Amapá, with the participation of the local population.
Target Areas	
15. BX-021 (Area: 207,000 hectares) Ecoregion: Xingu/Tocantins-Araguaia Moist Forests State: Para Area of extreme biological importance, located near a highway with a high degree of human occupation. Besides protecting important biological resources, the site would serve as a buffer zone for the indigenous territory located on the south border.	**16. BX-061 (Area: 108,000 hectares)** Ecoregion: Tapajós /Xingu Moist Forests, Madeira/ Tapajós Moist Forests State: Pará Area of extreme biological importance and of high value for environmental services. Its location along the Madeira River contributes to the conservation of an important aquatic habitat.
17. BX-063 (Area: 227,000 hectares)	**18. BX-065 (Area: 58,000 hectares)**

Ecoregion: Madeira/ Tapajós Moist Forests State: Pará Despite its location in an area of high human occupation, this site is very important for the conservation of aquatic habitats. It also connects three existing protected areas.	Ecoregion: Tapajós/Xingu Moist Forests State: Pará Area of extreme importance for the conservation of biodiversity. It has a high diversity of mammals and birds. It contains the headwaters of the Aripuanã River, and it connects four indigenous territories, creating one of the largest blocks of conservation unit.
19. TO-001 (Area: 220,000 hectares) Ecoregion: Tocantins-Araguaia/Maranhão Moist Forests State: Pará Located on Brazil's coastal zone, this area is of extreme biological importance. It has high species diversity for birds, reptiles, amphibians, and mammals. It also is extremely important for the conservation of marine species and their habitat. Because of its location, it is under high human pressure.	**20. TO-008 (Area: 371,000 hectares)** Ecoregion: Tocantins-Araguaia/Maranhão Moist Forests State: Pará Area of extreme biological importance, with high plant, mammal, reptile, and amphibian diversity. This site is located inside a highly developed area, which is undergoing rapid habitat destruction/deforestation.
21. VZ-027 (Area: 72,000 hectares) Ecoregion: Madeira/ Tapajós Moist Forests State: Amazonas Area of great importance for the maintenance of ecological processes. Located at the north end of a block of protected areas, this site would increase the biodiversity protection of this region.	**22. VZ-031 (Area: 1,331,000 hectares)** Ecoregion: Madeira/Tapajós Moist Forest, Tapajós/Xingu Moist Forest, Monte Alegre Varzea, Uatuma-Trombetas Moist Forest, Gurupá Várzea State: Pará Extremely important site for the conservation of flood plain resources. Aquatic ecosystems are poorly represented within protected areas, and the Santarém region is well known for its high species diversity.
3. Western Amazon Region	
Socioeconomic Importance of the Subregion	**Threats and Control in the Subregion**
This subregion still depends on river transportation and extractive economies. The presence of indigenous populations and military forces is very strong in the subregion. Manaus is the great frontier capital, located between the northwestern transport corridor and the extensive forested areas of the Greater Amazon Basin.	In the entire Amazon region, this subregion is the least threatened in terms of biodiversity conservation. Yet despite the presence of extensive areas of intact forests, indigenous territories, and PAs along the frontiers, in contrast to the situation in the other subregions, the central part of Amazonas state is relatively devoid of PAs and indigenous territories. Monitoring is the key word for policy action in this subregion, in which the contribution of the Monitoring System for the Brazilian Amazon (SIVAM) will be crucial. The

	long-term protection of this subregion will depend on: (a) the rapid establishment of the Central Amazon Ecological Corridor; (b) the pertinence of participating (or not) in the carbon market proposed by the Kyoto Protocol; and (c) the problem of increasing density of indigenous populations in the outskirts of urban centers.
Target Areas	
23. JU-008 (Area: 304,000 hectares) Ecoregion: Iquitos Várzea, Southwestern Amazonian Moist Forests State: Acre/Amazonas On the border of the states of Acre and Amazonas, this area has one of the few remnants of white sand savanna. It has a high degree of endemism, and great plant diversity. This site also connects the Serra do Divisor National Park to three indigenous territories.	**24. RN-038 (Area: 195,000 hectares)** Ecoregion: Japura/Solimões-Negro Moist Forests State: Amazonas Area with a high degree of invertebrate diversity and endemism. The area is contiguous to two areas of strict conservation, and one area of direct use. This area is key to increasing the size of an existing block of protected areas.

ANNEX 14

CONSOLIDATION OF EXISTING PROTECTED AREAS

The process of selecting the PAs for Phase 1 was divided into two stages. The first sought to analyze all existing PAs in light of criteria considered essential for the Project, such as the lack of conflict with indigenous lands, a favorable land tenure situation; and the logistical feasibility of consolidation in four years. The second verified the PAs' capacity to put into effect and disseminate consolidation efforts.

Thus, in order to be considered suitable for Component 2, the protected area of strict protection first had to meet the following criteria:

Lack of conflicts with indigenous lands or communities. The expression "conflict," for the purpose of this criterion, strictly relates to the nonoccurrence of overlapping of polygonal areas between protected areas and indigenous lands (whether demarcated or not), and/or the nonexistence of disputes and confrontations over the use of natural resources occurring in a conservation unit by the surrounding indigenous communities.

Land tenure situation resolved or favorable for resolution. Protected areas with an effective lack of land tenure problems with regard to land possession or those in which land tenure (land possession) problems refer to less than 10 percent of the total area.

Logistical feasibility of implementation during the duration of Phase 1 (4 years). This criterion deals with the ability to meet the physical implementation targets for infrastructure and incorporation of staff in four years, due to difficulties imposed by geographic location, size, social context, and external pressures.

The following table shows the status of the thirty protected areas of strict protection existing for the Amazon biome, in light of the qualification criteria for Component 2:

Table 14.1 Protected Areas Qualifying for Component 2 Consolidation

Protected Areas of Strict Protection	1–Lack of conflict with indigenous lands	2–Favorable land tenure situation	3–Feasibility for consolidation
1. Jaú National Park	A	A	A
2. Pico da Neblina National Park	NA	NA	NA
3. Abufari Biological Reserve	NA	A	A
4. Uatumã Biological Reserve	A	A	A
5. Anavilhanas Ecological Station	A	A	A
6. Juami-Japurá Ecological Station	A	A	A
7. Sauim Castanheira Ecological Reserve	A	A	A
8. Jutaí Solimões Ecological Reserve	A	A	A

9. Cabo Orange National Park	A	A	A
10. Lago do Piratuba Biological Reserve	A	A	A
11. Maracá-Jipioca Ecological Station	A	A	A
12. Jarí Ecological Station	A	A	A
13. Serra do Divisor National Park	A	A	A
14. Rio Acre Ecological Station	(*)	(*)	(*)
15. Gurupi Biological Reserve	NA	NA	NA
16. Iquê Ecological Station	NA	NA	NA
17. Amazônia National Park	NA	NA	NA
18. Rio Trombetas Biological Reserve	A	A	A
19. Tapirapé Biological Reserve	A	A	A
20. Maracá Ecological Station	A	A	A
21. Caracaraí Ecological Station	NA	A	A
22. Monte Roraima National Park	NA	NA	NA
23. Niquiá Ecological Station	A	A	A
24. Serra da Mocidade National Park	NA	A	A
25. Viruá National Park	A	A	A
26. Pacaás Novos National Park	NA	NA	NA
27. Guaporé Biological Reserve	NA	NA	NA
28. Jarú Biological Reserve	A	A	A
29. Araguaia National Park	NA	NA	A
30. Serra da Cutia National Park	A	A	A

A – Meets criterion; NA – Does not meet criterion; (*) – Insufficient data

Next, the Protected Areas that meet the three qualification criteria were evaluated with regard to their ability to put into effect and disseminate consolidation efforts, according to the following criteria:
Existence of inter-institutional conditions or other externalities that make the consolidation effort effective: These externalities may be associated with the presence of companies that collaborate or may collaborate with the process of consolidating the Protected Areas with NGOs interested and trained to collaborate with the consolidation of the PAs, or with the expressed interest of OEMAs in contributing to the consolidation of the PAs.

Strong potential for synergy in the preservation of other areas of restricted use. This refers to the potential expansion of the effects of protection due to the proximity or contiguity among protected areas, optimizing the efforts of consolidation and protection. The PA that has this characteristic to a greater degree should take precedence over others that may be classified.

The following table shows the result of the evaluation according to effectiveness criteria:

Table 14.2 Protected Areas Qualifying for Component 2 and with High Potential for Consolidation Effectiveness

Protected Areas of Strict Protection	4–Existence of strategic partnerships	5–Potential synergy
1. Jaú National Park	A	A
2. Uatumã Biological Reserve	A	A
3. Anavilhanas Ecological Station	A	A
4. Sauim Castanheira Ecological Reserve	NA	NA
5. Jutaí Solimões Ecological Reserve	NA	A
6. Juami-Japurá Ecological Station	NA	A
7. Cabo Orange National Park	A	A
8. Lago do Piratuba Biological Reserve	A	A
9. Maracá Ecological Station	A	A
10. Jarí Ecological Station	A	A
11. Serra do Divisor National Park	A	A
12. Rio Trombetas Biological Reserve	A	A
13. Tapirapé Biological Reserve	A	A
14. Maracá Ecological Station	NA	A
15. Niquiá Ecological Station	NA	A
16. Viruá National Park	A	A
17. Jarú Biological Reserve	NA	A
18. Serra da Cutia National Park	A	A

Since the physical implementation of the Serra da Cutia National Park will be initiated by Component 1, the 12 remaining PAs considered able to be consolidated in four years are:

Table 14.3 Protected Areas with Potential for Consolidation in Phase 1

1. Jaú National Park
2. Uatumã Biological Reserve
3. Anavilhanas Ecological Reserve
4. Cabo Orange National Park
5. Lago do Piratuba Biological Reserve

6. Maracá Ecological Station
7. Jarú Biological Reserve
8. Serra do Divisor National Park
9. Rio Trombetas Biological Reserve
10. Tapirapé Biological Reserve
11. Viruá National Park
Juami-Japurá Ecological Station

However, since these protected areas have existed for different lengths of time, they were analyzed according to the degree of current implementation, and were divided into three groups which characterize their status with regard to the likelihood of consolidation in four years:

Reduced degree of implementation. Protected areas with reduced or no physical infrastructure; human resources limited to the Unit Chief or nonexistent; sporadic protection activities carried out by enforcement staff not belonging to the Unit; nonexistent scientific research.

Low degree of implementation. Protected areas without planning instruments but with some physical infrastructure and equipment which allow minimum vigilance and protection activities to be carried out. These units have a small but insufficient number of staff for administration and management activities.

Medium/High degree of implementation. Protected areas with planning instruments PM "Plano de Manejo" (Management Plan) or PAE "Plano de Accão Emergencial" (Emergency Action Plan) which, in some cases, need to be updated; the quantity or quality of their physical infrastructure and equipment is insufficient to perform more effective activities of protection, administration, management, and research support; they have a minimal number of staff that needs to be expanded and trained to fully carry out management and protection activities.

The following table presents the result of the analysis with the final list of PAs:

Table 14.4 Degrees of Implementation for Protected Areas with Potential for Consolidation in Phase 1

Protected Areas of Strict Protection	Degree of Implementation
1. Jaú National Park	Low
2. Uatumã Biological Reserve	Low
3. Anavilhanas Ecological Station	Low
4. Cabo Orange National Park	Reduced
5. Lago do Piratuba Biological Reserve	Low
6. Maracá Ecological Reserve	Low
7. Jarú Biological Reserve	Low
8. Serra do Divisor National Park	Low

9. Rio Trombetas Biological Reserve	Medium/High
10. Tapirapé Biological Reserve	Medium/High
11. Viruá National Park	Reduced
12. Juami-Japurá Ecological Station	Reduced

ANNEX 15

PARTICIPATORY PROCESS FOR CREATION OF PROTECTED AREAS

1. Public Consultation Process

The priority-setting workshop for the Amazon that took place in Macapa, Amapa, during September 15-25, 1999, was the first process to ensure participation of the civil society, grassroots organizations and indigenous groups in the identification of proposed areas under ARPA. This process is described in detail in Annex 13 and in Annex 16 of this document.

ARPA has been discussed more widely over the last two years. The proposal has been submitted for comments to social organizations involved the Amazon (GTA, CNS, CONTAG, COIAB, and ASMUBIP) and to FUNBIO's Board, which has a broad NGO representation. The government of Brazil recently gave one additional seat to social NGOs in the Program Committee. The Program Committee now has six government members (SECEX/MMA, SCA/MMA, SBF/MMA, IBAMA, State Forum of Secretaries of Environment of the Amazon Region, and municipalities) and six members from civil society (two social NGOs, two environmental NGOs, one FUNBIO member, and one donor).

Other participatory processes have taken place since the early phase of project development and help test the procedures for continued public consultation during project implementation. Two workshops were organized, one in Rondônia and one in Roraima, financed by the WWF/WB Alliance, to create a set of new areas and develop a methodology for public consultation during project implementation. These workshops were carried out in October and November of 2000. One case study involved the creation of an indirect use area (park) and of two Extractive Reserves in Costa Marques, Rondônia. The second case study involved the preparatory workshop for the consolidation of a mosaic of protected areas of indirect use (parks and ecological stations) in Caracaraí, Roraima. In both cases, the methodology was assessed by a variety of actors and found appropriate for the proposed objectives of ARPA. The proposed methodology consists of a continuous and flexible process, which will bring together the main social actors involved with the created PAs. As time goes by, the stakeholders also will participate in the management process of the PAs. The results of both consultation workshops are available in the Project's files.

In general, the use of participatory consultation in developing project design, such as the workshops conducted in Costa Marques and Caracaraí, has shown to be valid and fundamental for an efficient, consistent, and participatory beginning, for the development of the Project, and for the search of a inter-institutional integration that supports and facilitates the creation and the consolidation of PAs. The results of the two workshops were integrated by the government team and presented to the Bank as part of the project documentation describing the procedures and methodologies that would be used to create and consolidate PAs in the Amazon region. A summary is presented below.

2. Participation Requirements under ARPA

Law number 9.985, dated July 18, 2000, which approves the SNUC, establishes under the fifth article that such system must be ruled by guidelines that:

- Ensure mechanisms and procedures necessary for society's involvement in the national policy review and institutional arrangements to manage PAs
- Ensure the effective participation of local populations in the creation, implementation, and management of PAs
- Seek the support and cooperation of private and nongovernmental organizations and individuals for studies, scientific research, environmental education programs, recreational activities and ecological tourism, monitoring, maintenance, and other activities related to PAs management
- Encourage local populations and private organizations to establish and manage PAs within the national system
- Ensure that the process of creation and management of PAs would occur in conformance with the surrounding land and water administration policies, and as deemed appropriate for local economic and social conditions and needs
- Guarantee alternative subsistence forms or a fair compensation for the loss of resources used by traditional peoples whose subsistence depends on the use of resources inside the PAs

Paragraphs 2 and 3 of Article 22 of SNUC, state that the creation of PAs should be preceded by technical studies and public consultation which would identify the unit's localization, size, and borders more adequately and according to the regulation. During this public consultation process, Public Power is forced to provide adequate and clear information to the local population and other interested parties. It would include the participation of representative indigenous groups nation-wide and that live near the area of the parks.

The regulation of the SNUC legislation is currently under preparation by the Ministry of Environment following an extensive public consultation process. The methodology hereby proposed could be modified due to adjustment of the approved regulation plan and, once passed, would be adopted in a new version of the Project Operational Manual, to be reviewed by the Bank.

The search for the definition of a procedural plan in order to establish local inter-institutional arrangements for the creation, implementation, and sustainability of PAs was reflected in the document "*Marco Conceitual das Unidades de Conservação Federais do Brasil*" (MMA/IBAMA/DIREC, 1997), which has DIREC/DEUC policies and guidelines for participative or shared management of PAs. These policies and guidelines recommend to stimulate and promote participative processes between the PA managers and the main social groups that are directly or potentially involved with PAs management. This process aims to prevent or solve conflicts and to deepen the links and cooperation with society and institutions, which guarantees more effective protection of the unit ecosystems and an increase of positive results for the society. This proposal considers as "social actors" all the groups, people, and institutions whose characteristics and points-of-view about the PA are important to know for its creation and consolidation.

3. Methodology for the Consultation Process

3.1 Objectives.

The general objectives of the consultation process for the creation of PAs require that different institutions participate on the local, municipal, state, and federal levels. The consultation process here proposed should have the following specific objectives:

- Clarify the reasons and objectives for the creation of the PA so that the local society can understand the reason of its creation
- Identify and understand each social group's interests and concerns
- Identify the capabilities, objectives, and potential contribution of each social group
- Improve the understanding of conflict problems and situations relating to the creation of the PA
- Obtain support for PA's management actions

3.2 Implementation Strategy.

The consultation process will be executed in three different stages: technical site visit, consultation workshop, and consolidation of the results. The environmental agency, either at federal, state, or municipal levels, responsible for the creation of the PA will establish a team of staff and a consultant *ad hoc*, to be hired by the Project. The environmental agency technical staff will take part in all three stages, and will offer orientation and subsidies to its development. The hired consultant will be responsible for preparing the documents produced during the process. The agency responsible for the consultation process—including all the contacts with the involved governmental or nongovernmental institutions and other social groups—should be the Manager of the PA to be created so that a real identity between these entities and groups and the PA is established early on, and to promote greater involvement in and commitment to the PA by the social actors, without mediators. A specific training program would be available to empower managers for planning and executing such activities.

Three stages of the consultation process, with their objectives, methodological procedures, and participants, are described below.

First Stage: Technical Site Visit

a. Objectives. The objectives of the technical site visit are to: (1) preassess the institutional framework in the region where the PA will be created, identifying the different social actors directly involved or those that would be important to be involved in the future; (2) assess the different social actors' understanding about the PA to be created, their awareness about its objective, and the values that they attribute to it; (3) conduct a preliminary survey on the threats that the PA will face and possible ways to protect it; (4) identify possible conflicts by different social actors regarding the natural resources of the proposed area for its creation; (5) identify the participants for the consultation workshop; (6) prepare a brief document about the current situation of the PA to be created, based on the information collected and to be presented during the opening ceremony of the consultation workshop; and (7) plan the logistics of the workshop and present them to the municipality nearest to the area in which the PA will be created.

b. Participants. The workshop would be conducted by environmental agencies, technical staff responsible for the proposed PA creation, and an *ad hoc* consultant.

c. Methodological procedures. The workshop should acknowledge the proposed PA and the role for nearby municipalities, define where the event that will identify the area will take place, draft the invitation to local social actors, produce the list of participants, and take care of the workshop logistic planning.

Secondary data also should be collected (technical reports, publications, etc.) about the current situation of the proposed area and the social-economic and historic-cultural contexts. The most important aspect of the technical site visit is the interview with the representatives of the main social groups and institutions, and to inform them about the proposed PA, the reason for its creation, and the workshop. The interviewer's interest, conflicts, and expectations regarding the proposed area should be registered in order to anticipate the issues to be dealt with during the workshop. The communities living inside the proposed area or in the buffer zones will be given special attention. The indigenous peoples living in the buffer zones will have a strong voice. The preparatory technical work must foresee the site visit to all the human settlements directly related to the PA to be created to carry out an informative meeting about the workshop objectives with local representatives. This meeting should be communicated and coordinated with local leaders to make possible the participation of a significant number of community members. When communication problems will make it difficult or impossible to have prior contact with the community representatives, the site visit should last the necessary time to reach the community representation.

The objective of the pre-workshop site visit will be to clarify the main questions regarding the PA (historical creation, functions, objectives, operation process, natural resources usage restrictions, geographical borders), and to convey the workshop's objectives, logistical issues, and the opportunities for the representatives' participation. The meeting also would offer the community the opportunity to express their concerns, aspirations, and needs that could conflict with the proposed PA's requirements. In order to adequately expose this information, it will be necessary to use tools to visualize them in an intelligible language.

The goal of the pre-workshop site visit is to overcome any obstacles to the participation of local-area representatives. This should result in a better preparation for the workshop, optimizing the timing for the realization of this event. The community meeting also will enhance understanding of the social actors' real life conditions. With respect to the indigenous peoples, contact with the state FUNAI office via formal correspondence will be established to inform them of the workshop, its objectives, and general topics. One technical staff from the project will facilitate contact with the local indigenous leaders, to guide the visit and to take part in the meeting. The date for this technical site visit should be flexible, adjusting to the local needs.

The period of time between the end of the technical site visit and the beginning of the workshop should not be less than two weeks in order to allow the participants sufficient time to prepare for the meeting, and to minimize absences. During this period, the environmental institution responsible for the proposed PA will send an official invitation to each one of the social actors identified during the site visit. The invitation will inform them about the workshop's objectives, length, program, and logistics, as well as what to expect regarding participation.

All of the expenses of the participants (especially of the social group representatives), such as transportation, lodging, and meals, will be fully covered by the event.

Second Stage: Consultation Workshops

a. Objectives. The objectives of the consultation workshops are to: (1) understand the problems and difficulties that could be raised by the creation of a new PA; (2) clarify and discuss with local society the objectives of the creation of the PA, seeking consensus on its objectives and the importance of PAs creation; (3) identify and understand the concerns and interests of each social group involved in the process; (4) identify the objectives, capacities, and responsibilities of the social actors with regard to creation of the PA; (5) establish local

institutional capacity, social consequences, possibility and interests for creation of the PA; (6) obtain support for these actions and for the future management unit; and (7) determine the best category of PA that could be adopted (that is, park, Extractive Reserve, etc.).

b. Participants. Between 20 and 25 (maximum) representatives of the main social actors who are directly involved with the process, identified during the pre-workshop site visit; three or four representatives of the institution responsible for the creation of the area; one local representative of MMA/SCA (optional); two representatives of the team who conducted the study (environmental and social diagnostic) on the proposed area; one representative of ARPA (optional); one facilitator (optional); and one administrative support.

   The Facilitator could be one of the team members or be hired through the Project.

c. General guidelines. The workshop will take place subject to the following conditions being met: (1) a two-way dialogue exists between the workshop organizers and the participants; and (2) open group discussions are held on the raised issues to support its interpretation and evaluation process. The workshop will include dynamics and visualization techniques to enhance participation. There will be open sessions (plenary) and working groups for specific issues, followed by a final group presentation. By maximizing participation of all the different actors involved, the workshop will establish synergy among the participants, and facilitate the analysis and subsequent assessment of problems and solutions. Achieving a consensus among participants is not the focus. Conflicts will be settled at the time they arise.

d. Methodological procedures. Given that the workshop is a participatory process and that, in the first stage, participants are not yet directly involved with the creation of the PA, the workshop should not exceed two days. This limitation will support effective participation without overwhelming the participants, and will minimize interruption to their own responsibilities.

   The workshop should start with a dynamic introduction of the participants and by informing them about the workshop's objectives and the agenda. Thereafter, the workshop coordinators or the representative of the environmental institution in charge of the proposed PA should make a brief presentation on the current SNUC law, stressing the importance of managing PAs.

   This will be followed up by a presentation on the status of the proposed PA creation and its importance. During this session, it is very important to allow attendee participation. These talks will be audio tape-recorded by the workshop coordinator, for use later on in the workshop as a strong tool for consensus building and resolving discrepancies.

   The workshop will focus on the following results:

   - An analysis of the involvement of different social actors
   - An analysis of the status of the PA: strength, threats, or problems; weaknesses and opportunities
   - A recommendation to define an effective plan for the PA
   - The "involvement analysis" of the different social actors will be developed in two phases. In the first phase, each social group should respond to the following questions:
   - "Who are we?"
   - "What do we do?"
   - "What are our expectations?"

Each participant could answer these questions on a piece of cardboard so that a matrix can be built . Once complete, the matrix should be hung so that everybody can view it during the workshop. The results will be presented in the overall session.

In the second phase, each social group should reply to the following questions:

- "Are we taking advantage of the unique opportunity provided by this workshop?"
- "Has lack of interest been shown?"
- "How does it happen?"
- "What are the expectations/interests in relation to the PA?"
- "What is the value added to the proposed PA?"
- "What is our position or interest (support, refusal, unconcern) on the creation of the PA?"

Applying the same method as described above, each social group will respond to these questions on a piece of cardboard or flip-chart, so that all participants can view each others' responses during the workshop. The open session format will depend on its structure. In the event there is more than two social group representatives, they should get together and provide discussion among them, and, thereafter, present the conclusions in the open session. In the event there is only one representative of each social group (which usually happens), they attendees can choose to provide responses separately or to work in small discussion groups with the various representatives of social groups, related or not, for the purpose of clarifying ideas and airing doubts; thereafter, each group should respond to the questions on a separate sheet and present the results in the open session.

The purpose of the "situation analysis" is to identify weaknesses, threats, or problems relating to the PA, and to strengthen opportunities for creating the PA. The following should be considered:

- The *weaknesses* are conditions or intricacies characteristic of the area to be created and of the institution responsible for the creation which will impede the PA creation.
- The *threats or problems* are situations, tendencies, or facts external to the area to be created and to the institution responsible for the creation which could impede the PA creation.

- The *strengths* are the conditions or characteristics specific to the area to be created and to the institution responsible for the creation which will assist with or contribute to the PA creation.

- The *opportunities* are situations, tendencies, or facts external to the area to be created and to the institution responsible for the creation which can contribute to and assist with the PA creation.

For the "situation analysis," four different subgroups will be set up. Each subgroup will be responsible for the identification of the aspects/concerns raised above (weaknesses, threats, or problems; strengths and opportunities). Each subgroup shall be composed of social group representatives, based on their specific areas of responsibility or work schedules. In the event there is more than one representative for each social group, a distribution between groups is strongly recommended.

The results will be presented and discussed during the wide session (plenary), to promote a consensus. Those who cannot agree will be documented as such.

To define an action plan for PA creation, participants will consider:

What can be done. . .	- to capture identified opportunities? - to catalyze potential strengths? - to minimize or resolve threats and problems? - to neutralize or eliminate weaknesses?

The group's recommendation for each of these questions must be discussed, and an answer sought to the following questions:

- How to proceed with these different recommendations?
- How to set up responsibilities among the social actors in order to implement smoothly the different recommendations?

The recommendations and suggestions for implementation could be identified by the subgroup "Analysis of the situation". The recommendations received for the strengths, threats or problems, opportunities and weaknesses should be compiled. The results will be presented during the plenary session and analyzed by the participants. Any recommendation that did not reach a consensus will be recorded for later discussion.

At the end of the workshop, the participants will address the proposed issues. It also is recommended that an overall evaluation be made of the workshop's logistics, proposed issues, agenda, participants, and workshop methodology assessment.

The proposed format for the workshop (that is, using work groups for analysis and to generate recommendations, followed by a plenary session for consensus building) is highly effective. It facilitates flow from one segment of the workshop to the next, enhances attendee participation, and improves the potential for a consensus to be reached. Therefore, during the recommendation phase, close monitoring of group participation is highly appreciated to help the group in its objectives regarding the importance of PAs creation.

e. Workshop schedule. The workshop duration is approximately two days. The workshop should follow a detailed timetable, adapted to the particular venue, with breaks among each period. For a two-day workshop, the following schedule is recommended:

First Day:

[Morning]
Kickoff - participant identification, distribution of workshop material, etc. (30 minutes)
Opening – Workshop objectives (10 minutes)
Introduction of participants (20 minutes)
Brief presentation on the current SNUC and the meaning and importance of PAs management (45 minutes)
Conference on the status of the proposed PA and the importance of PAs creation (30 minutes)

Open session for participants' comments and suggestions [Afternoon] Analysis of Involvement – Start with analysis of the real situation (status)—identification of the current activities in the proposed creation area (suitable or divergence); identification of the consequences or negative effects caused by activities in place of the proposed PA.
Second Day: [Morning] Continuation of analysis of the real situation (status)—strengths, threats or problems, weaknesses, and opportunities [Afternoon] Identification of recommendations to define the PA implementation plan; Directions.

Third Phase: Consolidation of the Results

a. Objectives. The objectives of the third phase are to:

- Compile the information received
- Provide a strategic assessment for the articulation of the inter-institutional area
- Prepare Workshop final documents.

b. Proceedings. The consultant will assemble the results of the Workshop to obtain a better understanding of the issues involved, evaluate the creation, and develop a strategy for the articulation of the inter-institutional area to be created.

For this, the consultant should prepare a document including at least the following:

- A detailed local-institutional capacity assessment and how it will apply during the project implementation (ARPA)
- A comparison between the social consequences of and the local interests on the PA creation, and how interests are linked to PA creation
- An analysis on the Involvement and on the Status, with a matrix of opportunities, Threats, Strengths and Weaknesses of the proposed PA
- Establish a rate for each social actor who is directly involved with the PA, as per the previous analysis
- A preliminary plan for the effectiveness of the proposed PA.

ANNEX 16

INDIGENOUS PEOPLES STRATEGY

ARPA adopts the full involvement of local, regional, and national societies as a basic principle for the creation, consolidation, and maintenance of protected areas (PAs). Therefore, the Project will seek to ensure that participatory mechanisms for traditional people, *quilombolas*,[12] and indigenous peoples are in place, and that their representative organizations, interested in the activities to be developed during project implementation, are able to participate.

The Project will use an innovative methodology (see Annex 15 - Participatory Process for Creation of PAs), developed to effectively assure the rights of indigenous and traditional peoples, to assess the situation of people living within the boundaries of existing or future PAs..

The main Project strategy, to create new PAs in a mosaic of different management categories (see Annex 13), is based primarily on the Constitutional prerogative that warrants indigenous peoples and *quilombolas* permanent occupation and use of their land. That is, in any given situation and at any given time, occupation of indigenous land and *quilombo* lands is assured to the indigenous peoples and the *quilombolas* (Federal Constitution: Article 231, Temporary Provisions: Article 68). In addition to their Constitutional rights, representatives of indigenous peoples, *quilombolas*, and traditional populations are assured participation in the Program Committee.

Unsolved problems that might persist in existing PAs to be consolidated under the Project, will be addressed by the Conflict Resolution Mediation Committee. The Committee would be called by the Project's Executive Coordinator (see Annex 11 – Institutional Arrangements), and will allow the Project to apply differentiated policies and tools, where pertinent, to particular situations.

1. Context

ARPA is part of a 10-year Brazilian Government program for the establishment and consolidation of protected areas in the Brazilian Amazon. The first phase of this program (four years) seeks to protect 18 million hectares with the creation of new PAs (9 million hectares in "strict protection" PAs and 9 million hectares of "sustainable use" PAs); to consolidate 7 million hectares of existing "strict protection" PAs; and to establish an endowment fund (FAP) to finance recurrent costs of selected "strict –protection" PAs, and vigilance of "sustainable use" PAs (see Annex 2 - Detailed Project Description). Thus, the Project will contribute to the implementation of Law 9985 of July 18, 2000, which created the SNUC, in which PA categories are defined, each with its respective management system.

The SNUC law distinguishes two main categories of PAs: (a) Strict Protection, the primary objective of which is conservation, and which stresses a strict protection regime including the prohibition of productive activities and natural resource exploitation (for example, National Parks, Biological Reserves, and Ecological Stations); and (b) Sustainable Use, that allow for the direct use and exploitation of natural resources within certain conditions agreed upon and defined in the management plan (for example, Extractive Reserves and Sustainable Use Reserves). The SNUC law covers federal, state, and municipal PAs, as well as private protected areas.

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[12] The term "*quilombolas*" refers to traditional populations of African origin, remaining from communities formed by runaway slaves (*quilombos*).

The federal government's general strategy with ARPA is to create a mosaic of PAs in the Amazon region in which each PA would correspond to specific priorities for environmental conservation, as well as to the demands of traditional peoples, indigenous groups, and *quilombola* populations. Thus, the core premise of the Project is the involvement and active participation of local populations in light of their importance for the long-term sustainability of the Protected Area System in the Brazilian Amazon.

2. Principles to be Adopted by the Project

Among the basic principles that will be adopted by ARPA is to impede the creation of PAs overlapping with existing Indigenous Lands (*Terras Indígenas*) or any other types of indigenous area not yet fully identified or demarcated. Not only is this a basic principle for Project implementation but also a Constitutional determination regarding indigenous areas. In this sense, there will be no need to open a negotiation process with the indigenous peoples that occupy demarcated areas, they will remain in their traditional living sites.

ARPA will focus on the following situations: (a) overlap between an Indigenous Land and an existing PA; (b) the presence of indigenous peoples in potential areas for creation of new PAs; and (c) close proximity between an Indigenous Land and a PA. During the studies phase, if isolated indigenous groups or non-isolated groups whose lands are yet to be demarcated, are located in an area being considered for PA creation, the Constitutional provision will be met, and a process will be started to demarcate an Indigenous Land through FUNAI.

3. ARPA and Indigenous Peoples

The Project will potentially benefit indigenous peoples in the vicinity of the PAs, as the PAs could function as buffer zones preventing frontier encroachment and illegal activities on indigenous lands. In addition, PAs are designed for protection of water resources, wildlife, and natural vegetation cover—a benefit for neighboring areas and for society as a whole.

ARPA, through its participation in the Pilot Program for the Conservation of the Brazilian Rain Forests (PPG-7), will work closely with the Demonstrative Projects for Indigenous Peoples (PDPI) for prioritization of activities in the vicinity of PAs assisted by ARPA, and also with the Project for the Integrated Protection of Indigenous Amazonian Populations and Lands (PPTAL) during demarcation of new indigenous lands and new PAs.

Indigenous peoples will have direct involvement in the Project through their representatives in the Program Committee, and through the PA Management Councils established in the areas surrounding Indigenous Lands.

4. Brazilian Amazon Indigenous Peoples

According to the National Foundation for Indigenous Affairs (FUNAI), the indigenous population in Brazil amounts to 326,000 people. Indigenous Lands cover some 946,452 square kilometers, which corresponds to 11 percent of Brazilian national territory, and to 22 percent of the Legal Amazon area. Experts estimate that there still are some 2,000 indigenous people living in isolated groups in the Amazon who have not yet had significant contact with the national society.

However, it is well known that a majority of indigenous groups in Brazil today have close relationships with the regional and national societies, being involved in commercialization of products, utilizing public services (health and education), and participating in public life, including electoral processes at different levels (municipal, state, and federal). In this sense, it is necessary to ensure the indigenous peoples' access to markets, to means of transportation, to public services, and to natural resources. The Ministry of Environment recognizes the possibility that the creation or consolidation of a PA could modify the indigenous groups' accessibility to the resources mentioned above, and, therefore, will assist with the maintenance of the current social and cultural patterns of the indigenous group involved.

For a long time, indigenous peoples have used tropical forest ecosystems for their subsistence and trade without causing major environmental degradation. Many scientists consider as exemplary the indigenous knowledge in natural resources management. However, indigenous peoples are vulnerable to changes occurring in the Amazon. While problems and issues are diversified across the region, the majority of observers agree that the legalization of indigenous areas is a precondition for their survival.

Whereas ARPA does not focus on resolving the grave problems faced by indigenous peoples in the Amazon, it will certainly contribute to improved conservation and management of natural resources in PAs surrounding indigenous lands, and it also will facilitate the possibility of access to financial resources from other PPG7 projects for an indigenous land surrounded by a selected PA.

5. Project Components and their Relation to Indigenous Peoples

5.1 Component 1 – Creation of new PAs. In this component, there will be no displacement of indigenous peoples, in accordance with the Constitution and other existing legislation. As stated before, if the presence of indigenous populations is detected in a priority area for creation of a new PA, FUNAI will be called upon to start the identification and demarcation process. Established legal procedures and the Project's participatory process will ensure effective application of this policy. Preparatory actions for the selection and the establishment of new PAs will be developed according to a successfully tested methodology (see Annex 15), which includes, among other activities, the consultation with government and nongovernment agencies aimed at ensuring that there will not be any overlap of the boundaries of proposed PAs with demarcated Indigenous Lands, or indigenous areas under demarcation or potential demarcation.

In this manner, during the process of the creation of PAs, the following steps will be taken by MMA or any of ARPA's implementers:

a)During the studies phase, the PCU team will verify through consultations with FUNAI, civil society organizations, and when needed, through field visits, the possibility of overlap with an indigenous land or with existing isolated indigenous people in the geographical area proposed.

b) If the presence of indigenous people is observed, MMA and the ARPA Project would suspend the process of creation of a PA in the proposed area until the indigenous land has been identified by FUNAI.

c) If the absence of indigenous land or people is confirmed in the proposed geographical area, the process of creation of a new PA will proceed.

5.2 Component 2 – Consolidation of existing PAs. In regard to PA consolidation, a Working Group will be created involving MMA, IBAMA, INCRA, FUNAI, and other interested institutions, in compliance with Article 42 of the SNUC law and the draft regulations for this law

which have been approved by CONAMA[13] and amended by MMA (see the letter of April 4, 2002, from the Minister of Environment to the CMU Director in the Project's files). This Working Group will have up to one year after the problem is detected to review a detailed report, prepared by IBAMA, on the social problems related to the consolidation of existing PAs. Each situation will be handled on a case-by-case basis. Additional surveys will be conducted as needed, and a participatory process for conflict mediation will be established, to propose guidance for problem solving, always ensuring indigenous peoples the access and possession of their lands.

As a condition for investment in the consolidation of existing PAs (see Annex 14 for details) and in the other analyses to be conducted by ARPA, a detailed analysis of potential overlaps with and/or conflict on natural resource use in indigenous areas within or in the vicinity of PAs, will be conducted with participation of the affected indigenous group. Based on the results of this analysis, a specific plan (Indigenous Peoples Plan) agreed with the indigenous communities to resolve the overlaps and/or conflicts will be proposed and implemented. The plan will include a definition of the priorities actions and the means to implement them (i.e. budget financing, timetable, institutional arrangements and monitoring and evaluation arrangements). This plan will take into consideration the Constitutional rights of the indigenous peoples, and will propose, as needed, redefinition of PA boundaries, incentives for alternatives to natural resource use, and other activities of potential interest to indigenous groups. Financial resources from ARPA or other government projects could be used to solve these potential problems.

In this manner, for the Consolidations of existing PAs, the following steps would be followed:

a) The Working Group would present a list of all the PAs with "social conflicts" (ie. overlap with Indigenous Lands).

b) Based on this list, the government will do an analysis case by case, propose solutions always ensuring the participation of the interested ones and the rights of the indigenous people, quilombolas and traditional populations.

c) The ARPA Program Committee with the support of this analysis and documents, would be responsible for the preparation and implementation of the Indigenous People Plan . This plan could be jointly prepared with the PPG7 program "Indigenous Peoples Demonstrations Project" or by FUNAI and would be financed by the Brazilian government.

d) The indigenous peoples from the buffer areas of the ARPA PAs, would prepare and implement Indigenous Peoples Plans, under the supervision of the Program Committee. These plans could be jointly prepared with the PPG7 program "Indigenous Peoples Demonstrations Project" or by FUNAI and would be financed by the Brazilian government.

5.3 Component 3 – Endowment Fund. Resources from the endowment fund (FAP) will be used for financing selected activities in the vicinity (buffer areas) of specific PAs, and thus may benefit existing indigenous groups in these areas.

5.4 Component 4 – Protected Area Monitoring. The monitoring of PAs includes the design of specific systems to follow up and evaluate human activities within and in the vicinity of selected PAs.

5.5 Component 5 – Project Coordination and Management. Funds are allocated in this component for the implementation and functioning of a Conflict Mediation Committee, which will be composed of government and civil society representation, and will function as a chamber for solving conflicts involving PAs and people within the scope of ARPA. The Executive

[13] CONAMA, The National Council for the Environment, is the official body that approves all federal environmental regulations.

Coordinator will ensure that the technical preparatory activities for creation of new PAs will involve site visits to all indigenous nuclei in a given area, in order to promote meetings for information of the local indigenous groups and to assess their aspirations and grievances. If indigenous groups exist in the vicinity of a proposed area, direct contact will be established through FUNAI representatives at the state and local levels, by official means, informing the indigenous groups of proposed activities and requesting assistance from the indigenous leadership to designated FUNAI staff in the preparation and implementation of site visits and meetings.

6. Facilitating Access to Funds Outside the Project

The Project Executive Coordinator will assist and facilitate indigenous peoples in gaining access to funds from other existing projects within the PPG7 program, such as financing and technical support available for the Demonstrative Projects for Indigenous Peoples (PDPI), which is bilaterally financed by KfW and other agencies, with counterpart funding from the Brazilian government.

PDPI is a grant program for indigenous development with three topic lines: (a) indigenous land protection and monitoring, (b) sustainable economic activities, and (c) cultural revival. PDPI might support activities in indigenous lands surrounding selected PAs to be consolidated by ARPA. Existing indigenous peoples in the surroundings of ARPA PAs, who will be assisted by the Project, will be fully informed on PDPI procedures. Before Project effectiveness, the Project Coordination Unit will conduct consultations with the PDPI and PPTAL, FUNAI, and other existing and potential donors to develop a mechanism that ensures the satisfaction of indigenous peoples' requirements that might arise from implementation of ARPA. Such consultations will be conducted with appropriate coordination in order to avoid duplication of efforts.

7. Determining Indigenous Peoples Presence

7.1 During project preparation. ARPA project design is based on the results of the PROBIO Macapá workshop that took place in September 1999 for the purpose of defining priority areas for biodiversity conservation in the Brazilian Amazon (see Annexes 13 and 15). The preparatory phase and the workshop were coordinated by the Socio-Environmental Institute (ISA), an organization that works with indigenous causes. This project included indigenous organizations, such as the Federation of Indigenous Organizations of the Rio Negro (FOIRN), Roraima Indigenous Council (CIR), and the Coordination of Indigenous People of the Brazilian Amazon (COIAB). Before the workshop, several assessments were undertaken and maps drawn, with primary focus given to the location and status of indigenous and traditional peoples. The Macapá workshop generated the priority polygons adopted by ARPA for the establishment of new PAs; and, based on available data, it provided a preliminary indication that none of the priority polygons identified by ARPA overlapped with Indigenous Lands, although several would share boundaries with existing indigenous lands. In addition, during preparation of ARPA, FUNAI's and IBAMA's official maps were consulted in order to determine which of the existing PAs would be targeted for consolidation, and to assess one of the selection criteria—the absence of overlaps or conflicts with indigenous lands (see Annex 14).

7.2 During project implementation. Determining indigenous peoples' presence within or in the vicinity of PAs, and identifying indigenous land status, will be clarified through: (a) official consultation with FUNAI, which will issue an official document regarding the presence or absence of indigenous groups in the area proposed for creation of a new PA; (b) specific social

assessment with indigenous groups and other social groups in and around the proposed area for creation of a new PA[14]; (c) consultation of all relevant government databases; and (d) consultations with nongovernmental organizations and/or academic organizations, such as the Brazilian Anthropology Association (ABA), ISA, Center for Indigenous Work (CTI), Missionary Indigenous Council (CIMI), among others.

It is acknowledged that certifying the presence of isolated indigenous groups without regularized areas is a bigger challenge than identifying groups in established Indigenous Lands. Additional research and numerous field visits may be required. ARPA will make every effort to verify the existence of indigenous peoples in the proposed priority polygons, and to establish whether indigenous peoples make use of natural resources within the expected perimeter of a proposed PA.

Eventually, if overlaps of PAs and indigenous lands are identified, the Project will stop any ongoing activity without regard to the stage of PA implementation, and will redefine procedures, including the preparation of an Indigenous Peoples Plan for this particular case in order to retain the original rights of the indigenous peoples.

The ARPA Project will not finance the creation of a new PA that borders an indigenous land until the land has been officially identified by FUNAI. Also, the preparation of a social assessment (as described in the footnote) of the groups involved will be needed. The ARPA Project through its participation in the PPG7 will formalize a Cooperation Agreement with PPTAL and an Implementation Agreement with the Indigenous Peoples Demonstration Project (PDPI). The purpose of these agreements is to ensure that these two PPG7 programs can prioritize ARPA's activities. An operational agreement will be signed between MMA and FUNAI to collaborate in the implementation of the strategy laid out in this document and will include, the certification of no-overlap with Indigenous Lands, to promote the official identification of Indigenous Lands for the project, the agreements with the principles and means presented in this agreement and that would be spelled out in the Operational Manual. FUNAI will finance these activities as part of their regular operations. MMA will coordinate and monitor the execution of the Indigenous Peoples Plans.

8. Legal Context

The Brazilian Constitution of 1988 provides the legal framework for the recognition of the indigenous peoples' right to their traditional territories, except for the right to exploit the subsurface resources.

Indigenous land regularization in Brazil is FUNAI's responsibility. It is a multiphased process to identify, demarcate, register, and homologate Indigenous Lands. The regularization process of the land is regulated by decree number 1775 of 1996.

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[14] For indigenous groups, the social assessment will consist of: identifying the existing ethnic groups in the area; generating demographic data and maps of areas occupied; direct consultation with the groups in a culturally appropriate manner; analysis of the indigenous economy and its relationship to the natural resource base; analysis of the relations with the regional society; analysis of the legal situation of the area; and analysis of the existing institutional capacity for dealing with indigenous group requirements. Normally this assessment is conducted by experts (anthropologists or other social scientists) with recognized knowledge on the region's indigenous groups.

Although the Brazilian legislation that established the National Protected Areas System (SNUC, Law 9985 of July 18, 2000) refers to the cooperation between the PAs and Indigenous Lands, its regulation has not yet being approved.

In compliance with Article 57 of SNUC, which requires the establishment of a working group of federal agencies responsible for indigenous and environmental issues, a Working Group has been created but not formally established. The government has established an advisory working group linked to the National Council for the Environment (CONAMA) to support this Working Group. The advisory group is composed of representatives of indigenous organizations, indigenous peoples, social and environmental experts, as well as of representatives from the Association of State Environmental Departments (ABEMA).

The SNUC law sets up the legal framework for "traditional peoples'" participation in the establishment and management of protected areas. This includes local populations' participation (including the participation of indigenous people) in the creation, implementation, and management of PAs, and in the establishment of PA Management Councils, including local communities and buffer zones representatives, among others.

ANNEX 17

RESETTLEMENT POLICY AND PROCESS FRAMEWORK FOR ARPA

The Brazilian government is a signatory of the major international conventions limiting and conditioning compulsory resettlement of populations, resulting in resettlement activities. In addition, the Brazilian legislation is very restrictive regarding this planning tool, due to public interest, it is limited to expropriation cases. However, the law that created the SNUC includes the following provisions: (a) "Article 9, § 1°– The Ecological Station is of public property and dominion, the private areas included inside its limits will be expropriated according to the law"; (b) "Article 10, § 1– The Biological Reserve is of public property and dominion, the private areas included inside its limits will be expropriated according to the law"; (c) "Article 11, § 1– The National Park is of public property and dominion, the private areas included inside its limits will be expropriated according to the law"; (d) "Article 42 – The traditional populations residing inside Protected areas in which their presence is not permitted will be indemnified or compensated for the existing improvements and appropriately resettled by the Public Authority, in locations and conditions agreed by the parties. § 1° The Public Authority, through the suitable institution, will prioritize the resettlement of the traditional population to be reallocated. § 2 Until it is possible to carry through the resettlement defined by this article, norms and specific actions will be designed to make the presence of resident traditional populations compatible with the objectives of the Conservation Unit, without harm to their way of living, their subsistence sources and their dwelling places, assuring their participation in the definition of these actions and norms. § 3 In the case of § 2, the norms regulating the length of residence and its conditions will be established in the regulations."

Until now, the Brazilian government has almost never used this tool (resettlement) in the process of creation, implementation, and consolidation of protected areas (PAs). The above-mentioned SNUC law creates different management categories for PAs that makes it possible to create mosaics of PAs in which both social and conservation demands are satisfied.

The SNUC law considers the possibility of resettlement arising out of existing social situations in some PAs created before the enactment of the law; as the status of local populations was not taken into consideration when boundaries were defined (or, people may have settled inside PAs after their creation). However, SNUC limits the use of resettlement to "traditional populations"; that is, "people whose livelihood depends on the exploitation of natural resources in systems developed locally over many generations, and adapted to the local environmental conditions" (Article 37, item I of the consensual proposal to regulate SNUC). The law also mandates for the population requirements to be met.

ARPA is one of the Brazilian government major projects to implement SNUC to date. In this document, principles are stated that will guide Project activities in relation to possible situations for population resettlement of traditional populations.

1) One of the basic principles adopted by ARPA is the creation, consolidation, and maintenance of PAs with full involvement by local, regional, and national society. In this sense, the Project seeks to ensure that mechanisms for traditional, *quilombolas*, and indigenous peoples' participation are in place (see Annex 15), and that their representative organizations, interested in the activities to be developed during project implementation, are able to participate.

2) The Project also considers that the existence of populations within the boundaries of the PAs under implementation and/or consolidation will be a recurrent fact; thus, it will use an important methodological innovation related to effective participation of society in PAs creation and management.

3) The Project's strategy of new PAs in a mosaic of different management categories (see Annex 13) is based primarily on the Constitutional prerogative that assures indigenous peoples and *quilombolas* permanent occupation and use of their lands. The Project's Institutional Arrangements (Annex 11) foresee the establishment of a Program Committee with equal representation from government and civil society, and a Conflict Mediation Committee that will allow for the application of policies and differentiated tools regarding specific situations of permanence or eventual resettlement of these populations.

1. Context

ARPA is part of a 10-year program by the Brazilian government for the establishment and consolidation of protected areas in the Brazilian Amazon. The first phase of this program (four years) seeks to protect 18 million hectares with the creation of new PAs (9 million hectares of "strict protection" PAs and 9 million hectares of "sustainable use" PAs); to consolidate existing "strict protection" PAs totaling some 7 million hectares, and to establish an endowment fund (FAP) to finance the recurrent costs of selected PAs of "strict protection" and environmental control and enforcement of PAs of "sustainable use" (see Annex 2 - Detailed Project Description). Thus, ARPA would contribute to the implementation of Law 9.985 of July 18, 2000, which created the SNUC, in which PA categories are defined, each with its respective management system.

The SNUC law distinguishes two main categories of PAs: (a) Strict Protection, the primary objective of which is conservation, and which stresses a strict protection regime including the prohibition of productive activities and natural resources exploitation (for example, National Parks, Biological Reserves, and Ecological Stations); and (b) Sustainable Use, that allow for the direct use and exploitation of natural resources within certain conditions agreed upon and defined in the management plan (for example, Extractive Reserves and Sustainable Use Reserves). The SNUC law covers federal, state, and municipal PAs, as well as private protected areas.

The federal government's general strategy with ARPA is to create a mosaic of PAs in the Amazon region in which each PA would correspond to specific priorities for environmental conservation, as well as to the demands of traditional populations, indigenous groups, and *quilombola*[15] populations. Thus, the core premise of the Project is the involvement and active participation of local populations in light of their importance for the long-term sustainability of the Protected Area System in the Brazilian Amazon.

This annex deals with resettlement of populations, which eventually might occur with the implementation of ARPA. Although the SNUC law provides for the resettlement of populations residing within the limits of "strict protection" PAs, the Ministry of Environment's policy in designing the Project is to avoid or minimize the need for population resettlement, taking all necessary measures to refrain from using this tool, whenever possible. Resettlement is considered as the last resort and it will only be used when all alternatives (mosaic of different categories of

[15] The term "*quilombolas*" refers to traditional populations of African origin, remaining from communities formed by runaway slaves (*quilombos*).

PAs, redefinition of PA limits, and so forth) have been exhausted and it has been demonstrated that the presence of traditional populations is incompatible with the objectives of the PA.

2. Principles Adopted by the Project

One of the basic principles adopted by the ARPA is to avoid the establishment of "strict protection" PAs where traditional populations are present. Therefore, in general, for the new PAs to be created under ARPA, there will be no need to displace traditional, indigenous, or *quilombolas* populations, who will remain in their traditional sites, while their land may be managed as "sustainable use" PAs or Indigenous Lands.

During the studies phase, in the case of an area under consideration for the establishment of a new PA, whenever the existence of traditional population, or of isolated groups of indigenous people or *quilombolas*, is identified, preference will be given to the creation of a "sustainable use" PA (see Annex 16 for the case of indigenous peoples). In some situations, where requests have been made for creation of a new RESEX or RDS in a different location, the government of Brazil may agree to such request. If the presence of indigenous peoples is detected, MMA or any ARPA implementer would seek assistance from FUNAI and if the presence of *quilombolas* is detected, Fundacao Palmares would be sought.

In the case of unavoidable need for resettlement of people due to the incompatibility of their presence with the objectives of biodiversity conservation, the Project's Coordination Unit (PCU) will prepare (or contract preparation of) a specific plan (Resettlement Plan agreed with the Bank), based on a social assessment, a cadastre, and an economic valuation of all assets, considering: (a) the social structure; (b) the economic basis; (c) the affected population's preferences regarding the new location; (d) the measures necessary to reestablish the economic and social structures; (e) a timetable of activities; (f) a defined budget for financing the activities involved; (g) the source of funds; and (h) the institutions responsible for implementing the required steps and activities.

The preparation and implementation of resettlement plans would be done in accordance with the directives from INCRA and with the principles and means (i.e. budget, financing, timetable, institutional arrangements and monitoring and evaluation arrangements) established in the Operational Manual of ARPA. The preparation and implementation of the resettlement plans will be financed with the regular budgetary allocations of INCRA.

3. Project Components and their relation to traditional populations

3.1 Component 1 - Creation of new PAs. Under this component, it is highly unlikely that there will be involuntary resettlement of traditional populations, *quilombolas*, or indigenous peoples. If the presence of one or more of these populations is detected, the Ministry of Environment (MMA) will propose the creation of Extractive (RESEX) or Sustainable Use (RDS) Reserves, or the demarcation of remaining *quilombos* areas, or Indigenous Lands. The existing legal procedures and the innovative participatory process for selection of new PAs under ARPA will be applied. Regarding the non-traditional populations, such as gold miners, commercial farmers, cattle ranchers, and others, IBAMA will develop compensatory activities, on a case-by-case basis in consultation with the affected populations. Whenever necessary, regarding the small producers, resettlement procedures will be implemented by INCRA, under a legal agreement to be signed between MMA/IBAMA and INCRA; the procedures will always be executed in consultation with the populations affected. In these cases, a resettlement plan would be prepared and implemented following the methodology described in this document.

3.2 Component 2 - Consolidation of PAs. In relation to consolidation of PAs, a Working Group will be created involving MMA, IBAMA, INCRA, FUNAI, and other interested institutions, in compliance with Article 42 of the SNUC law and the proposed regulations of this law which were approved by CONAMA and amended by MMA (see the letter of April 4, 2002, from the Minister of Environment to the CMU Director in the Project's files). IBAMA will provide the Working Group a detailed report on the social problems related to the consolidation of existing PAs, within 90 days after a problem is detected. The Working Group will have up to one year to assess the report, to propose solutions, and, on a case-by-case basis, to undertake supplementary research, as well as to establish a participatory process for conflict mediation. The Project, in accordance with the SNUC law and its proposed regulation, and stemming from its Program Committee, may consider signing a Commitment Term between IBAMA and the concerned populations during this period as a preliminary and necessary activity for participation in the existing PAs.

The resettlement of traditional populations will only be undertaken (after having exhausted all other alternatives to avoid it) following the criteria stated above, on a participatory basis and taking into consideration the social and economic needs of the affected populations. Among the possibilities to be considered, there is the option of reclassification of a PA of sustainable use category or to an INCRA sustainable development project (*Projetos de Assentamento de Desenvolvimento Sustentável*). The relocation procedures will always take into consideration the consultation with the affected populations and the maintenance of the population's social and economic capacities.

Involuntary resettlement of nontraditional populations—living in the site regardless of legal status (owners, tenants, and leaseholders among those most likely to be served by the Federal Government Agrarian Reform Program)—will be undertaken according to legal provisions through compensation or support to move and settle in another site, based on a legal agreement to be signed between MMA/IBAMA, and INCRA. These procedures will always take into consideration the consultation with the affected populations and the maintenance of the population's social and economic capacities, given that their activities are legal.

3.3 Component 3 - Endowment Fund. Resources from the Endowment Fund (FAP) will be used for financing selected activities in the vicinity (buffer areas) of specific PAs, and thus benefit traditional populations in these areas.

3.4 Component 4- PA monitoring. PA monitoring foresees designing of specific systems to monitor anthropic activities.

3.5 Component 5 - Project coordination and management. The Project Coordination will set aside the appropriated funds for the implementation and functioning of a Conflict Mediation Committee, which will be composed of government and civil society representation and which will function as chamber for solving conflicts involving PAs and people within the scope of ARPA.

4. Creation of New PAs

MMA will use the appropriate legal instruments and the Project's Participatory Consultation Process for creation of new PAs, ensuring the rights and permanence of indigenous peoples and

quilombo communities. It also will meet the demands of traditional populations by creating "sustainable use" PAs.

5. Resettlement

The principles to be followed by the Project include: (a) to avoid resettlement as much as possible; (b) to avoid disruption of community life as much as possible; (c) to restore livelihoods by assuring at least the previously existing standard of living; (d) to ensure the participation of affected populations in planning and implementation of any resettlement activity; (e) to conduct a cadastre of affected people before deadline; (f) to carry out a social assessment of the population affected; (e) to evaluate the different alternatives of resettlement; (g) to ensure proper application of the eligibility principles outlined below; (h) to assure that resettlement does not take place before providing agreed alternative compensations; and (i) to carry out adequate monitoring and evaluation of any such project.

5.1 Affected population size. It is not possible to estimate the size of any populations that will be affected at this moment because of uncertainties regarding the boundaries of new PAs, possible reclassification of areas of existing PAs, and so on. Such estimates would be made on a case-by-case basis through field surveys, social assessments, and broad consultations with affected peoples. As the goal is to avoid resettlement, as much as possible, it is estimated that very few people will be actually affected.

5.2 Description of Resettlement Plans preparation and approval process. Assuming that the options to avoid resettlement have been exhausted, the process would include the following activities: (a) Preparation and implementation of a legal agreement to be signed by MMA/IBAMA, and INCRA for preparation and implementation of the Resettlement Plans (the signature of this agreement is a condition of effectiveness for the Project); (b) Census surveys of the affected populations including, among others, the data needed for the application of the eligibility criteria for claims, land tenancy studies including the documentation related to assets that would be lost (for example, pastures, perennial crops, fences, houses), and the documentation on community infrastructure that would be lost (for example, schools, churches, football fields, etc.). The report would include the census data, photographs of houses and other infrastructure (dimensions, types of buildings, and other features), and the estimated costs for reposition at current market values; (c) Cut-off date; that is, after concluding the cadastre of affected populations, it will be widely disseminated that no compensation would be paid for investments made after that date, and that new families settling in the area after that date would not be eligible for any compensation or resettlement; (d) Participatory socio-economic studies to supplement census data, which would include detailed information on livelihood, formal and informal economic activities and natural resources use, income levels, social-cultural features, local organizations and assistance, community infrastructure, and existing services such as sanitation, health, and education, among others; (e) Analytical report on alternative solutions and the characterization of the resettlement area, including a description and evaluation of the predicted resettlement area (for example, physical, social, and other conditions); and (f) Definition of eligibility criteria and compensation packages.

5.3 Eligibility criteria. Resettlement criteria would be based on census surveys and on evaluation of assets with basis on the following table:

Table 17.1 Resettlement Criteria

Eligibility	Compensation
Property owners with legal titles or regularized land claims with total assets evaluated at prices higher than R$100,000 (one hundred thousand Brazilian Reais)	Compensation at market value for land, replacement value for assets, and moving allowance.
Property owners with legal titles or regularized land claims, small holders, with residence in the area of two or more years and with total assets below R$100,000 (one hundred thousand Brazilian Reais)*	Will be entitled to two options: (a) compensation at market value for land, replacement value for assets, and moving allowance; or (b) incorporation into INCRA or another settlement project in the nearest possible area, rehabilitation assistance, and moving allowance.
Squatters and other temporary dwellers with less than two years' residence, fishermen and hunters with permanent residences outside the area.	Moving allowances and reference to INCRA for inclusion in other settlement projects compatible with the conditions of the affected population.
Gold miners and lumberjacks.	Moving allowances.

* It is understood that many of the populations that fit this category are considered traditional populations by MMA and, therefore, their demands could be accommodated by creating new PAs of sustainable use, without the need for resettlement.

5.4 Organizational procedures for delivery of entitlements. IBAMA would address the compensation process and, if a resettlement tool were needed, an agreement among MMA, IBAMA, and INCRA would be signed. Areas to receive resettled families would be identified and ranked according to the preferences of beneficiaries; proximity to the current residences; adequate soils, water and other natural resources; and the availability of services such as health posts, transportation, schools, and so forth. Affected families would have an opportunity to visit proposed sites and to participate in planning of housing, services, etc.

6. Compensation Related to Natural Resources Access Limitation

There are a number of scenarios where local populations might lose access to use and exploitation of natural resources to which they previously had access: (a) neighboring population (outside demarcated PAs) relying on natural resources, such as game, fish, and plant materials inside the PA to which they would no longer have access; (b) studies point to the need to limit unsustainable natural resources uses in the PA buffer zone, such as harvesting of endangered stocks of fish or plants; and (c) local residents are engaged in unsustainable or illegal natural resource practices (for example, the sale of wild fauna) that would be limited or prohibited under a new Management Plan.

The access limitation described in the three scenarios above would be addressed within the framework of the management plans that would be prepared and implemented for the PAs that are part of the Project

6.1 Characterization of local communities and PAs. As stated previously, the vast majority of the

local communities throughout the Amazon—and especially the most vulnerable populations—practice mixed agricultural and extractive activities that, similar to many indigenous peoples, are based on traditional environmental knowledge and are of relatively low environmental impact, hence, they are largely sustainable. MMA does not intend to provide compensation for the loss of access to illegally obtained natural resources. However, it may seek to provide sustainable alternatives to such activities that will serve to discourage activities such as fishing, hunting, or capturing wild species for sale where prohibited.

6.2 Eligibility criteria for affected populations. Persons considered eligible for compensation or assistance for loss of access to natural resources from the creation or consolidation of PAs would include those identified in the aforementioned surveys, with special attention provided to the most vulnerable populations (including, among others, low income, landless, the elderly, women and children). Local people whose living does not depend on natural resources use (for example, shopkeepers, teachers, and so forth) as well as illegal users of natural resources would not be eligible. Merchants or artisans dealing in legally obtained natural commodities may be eligible.

6.3 Measures to assist affected populations. Nonphysical resettlement under the Project would be addressed by two major methods: (i) first, by means of the participatory management plans to be formulated for the PA and its buffer zone, and for reserves; and (ii) by financing alternative income-generating activities for local buffer zone populations.

a. In the case of recently established "sustainable use" PAs, it is expected that the participatory approach would facilitate the following: (1) The participation of neighboring communities in the Management Plan design for the environmental protected area; (2) Local stakeholders' participation in the Management Plan for the buffer zone; and in particular cases; and (3) Joint-management arrangements between PAs officers and local communities through the PAs Management Councils. Local government and stakeholders' representatives will compose PAs Management Councils, mandatory under SNUC. During the preparation of the Management Plans, resources management alternative regimes or other alternative economic activities would be identified for proper compensation due to limitations on the access to natural resources. Finally, the decision on management routines in the PAs and in the buffer zones would be taken by experts, but no losses of legally obtained resources will be allowed in the Project without due compensation through alternative income generation, culturally and socially appropriated activities.

b. The Management Plans could, as appropriate, identify and promote income-generating activities and training activities designed to offset prohibitions on the use of PA resources or possible restrictions on certain types of exploitation in the buffer zones. These could include support for fish farming, game farming, handicraft training, and other forms of support and training. MMA also would facilitate access by buffer zone populations to other public and private sector financing sources for improved natural resource use and management, and income generation.

c. Last, extractive or sustainable development reserve populations would have the responsibility primarily in designing the Management Plans, which would take into account both social and conservation goals, including the need to maintain and improve life conditions of the populations.

6.4 Legal basis for restrictions on use of resources. The federal, state, and municipal governments have the Constitutional authority, and through the SNUC law, to establish by decree areas in which restrictions on the use of natural resources is enforced.

6.5 Monitoring and Evaluation: The Program Committee, through reports and analyses prepared by the PCU, would carry out the monitoring of the activities related to this annex. With respect to the resettlement of small producers affected by ARPA, the PCU could contract out independent evaluations by qualified specialists that would be responsible for verifying that the affected population could re-establish their income and subsistence and has identified other means to reach their objectives. These evaluations would be carried out within a reasonable time after the resettlement so that, if needed, measures to correct possible problems can be taken. Monitoring would also be done for activities that limit access to resource use.

ANNEX 18

ENVIRONMENTAL ANALYSIS

Environmental Category: B (Analysis provided through this Annex of the PAD)

The goal of ARPA is to support the protection of certain types of protected areas under the recently passed SNUC legislation. This law defines the different categories of protected areas that constitute the Protected Areas System, and characterizes the management rules that apply to each type of protected area. ARPA will support protected areas that have a clear goal of conserving and protecting biodiversity; this includes: National Parks, Ecological Reserves (strict use protected areas), and Extractive Reserves and Sustainable Development Reserves (indirect use reserves) that also have the goal of conserving biodiversity as well as supporting the communities living in them.

The overall strategy of the Brazilian government is to create a mosaic of protected areas in the Amazon region, where the design of protected areas responds to the specific environmental and social conditions of each area. In this manner, and because the identification of new protected areas and the definition of their category will be done through the combination of scientific/technical information as well as socio-economic information, the ultimate design and implementation will be more socially and ecologically sustainable in the long term.

ARPA will not support the creation of Indigenous Reserves and National Forest Reserves; these have been supported under the PPG7 pilot program. Unlike Extractive Reserves, commercial logging operations are allowed in National Forest Reserves. In Extractive Reserves, community forestry has been only recently allowed under the newly passed SNUC law. ARPA will coordinate closely with these projects to ensure that the mosaic of protected areas is designed for the Amazon region. The regulation of the SNUC law is currently being drafted. Since it is not complete, the Brazilian government has prepared the rules that ARPA will operate under in applying environmental and forestry safeguards (see below). These will be spelled out in the Project Operational Manual. If the Regulation passes before the end of ARPA, the Operational Manual could be revised to apply the new rules.

1. Project Activities Where the Environmental and Forestry Safeguards Could Apply

The Project will not support activities that could seriously harm the environment. In Component 1, the identification and create of new protected areas will be supported. This activity does not have any impact on the environment. The social impact of the activities of Component 1 are discussed in Annexes 16 and 17. Under Component 2, the consolidation of Parks and Reserves will be supported. However, ARPA will not participate in the consolidation of Extractive Reserves and Sustainable Use reserves. These have been taken care of by other PPG7 and government programs. According to the Law, Parks and Ecological Reserves have a very restrictive use and, therefore, no environmental harm is expected from the project activities. The management of the buffer areas around the parks and reserves under this component (Component 2) could support a limited number of sustainable-use activities for the communities living around the Park. These will be screened for environmental impacts (see next section on details of this process). In Component 3, two major activities are expected: (a) Pilot projects to test income-generating activities for PAs; (b) Endowment Fund that will support the recurrent activities of PAs. The Endowment Fund will draw funds to pay for the recurrent activities of Parks and

Extractive Reserves. Under this component, screening procedures will be observed to ensure that the recurrent activities and pilot subprojects do not violate any of the Bank safeguard policies; rules will be applied. But no or minimal environmental impact is expected from the activities of Component 3.

2. Procedures to Observe the Environmental and Forestry Policy Safeguards

2.1 Natural Habitats Policy OP4.404, BP 4.04. ARPA has no impact on the Natural Habitat policy, since the goals of ARPA are actually to protect Natural Habitats.

2.2 Environmental Policy OP 4.01, BP 4.01. The subprojects in the buffer zones of PAs could support sustainable activities with minimum environmental impact. These sustainable-use activities could be supported under Components 2 and 3 of ARPA. These activities need to strengthen the conservation activities of the protected area and would be identified in the context of the Management Plans. No disbursements for sustainable-use activities would be done until the management plans for the areas have been approved. Once they have been identified, proposals would be prepared to request funding from ARPA. Proposals for these subprojects would be submitted to the Program Committee (PC), which would assess their value and would identify whether they are eligible for ARPA funding; if they are not eligible, the PC could recommend other funding sources. The proposals would include a section on the environmental issues of the activities and explain how they either have no impact or, if they have impact, how these will be mitigated. IBAMA or the state environmental agency, depending on whether it is a federal or state PA, will screen for the environmental impact of these proposals before they go to the PC for final approval. Eligibility criteria would be included in the Project Operational Manual. The screening will be performed according to the list of eligible activities listed below. It is worth mentioning that the Management Plans that will be required to include a zoning plan that takes into account the ecological fragility and biological importance of different zones within the PA, as well as the uses that are permitted within each zone. IBAMA, or the state environmental agency, will also ensure that the proposed sustainable-use activities adhere to the zoning proposal. Finally, no roads will be built in the PAs with any of the project funds.

Because FUNBIO will support the implementation of pilot subprojects under Component 3, FUNBIO will be responsible for the screening of any of the environmental impacts of the proposals for sustainable-use activities, following the same mechanism described above.

The protected areas endowment fund will support recurrent activities in a limited number of PAs. The eligibility criteria have been defined and they include, among other requirements, that the PA has an approved management plan.

2.3 Forestry Policy OP 4.36. In Extractive Reserves, community forestry has been allowed only recently under the newly passed SNUC law. Community forestry was not allowed in Extractive Reserves before the passing of this law. RPA will ensure that any activity of this type is done according to the Bank's Forestry Policy. In the SNUC law, Article 7 says that the exploration of timber resources in Extractive Reserves will only be permitted under sustainable schemes and in special circumstances, and should be complementary to the other activities developed within the extractive reserve, according to the dispositions in the regulations and based on the management plan from the Reserve. (*7º A exploração comercial de recursos madeireiros só será admitida em bases sustentáveis e em situações especiais e complementares às demais atividades desenvolvidas na Reserva Extrativista, conforme o disposto em regulamento e no Plano de Manejo da unidade.)*

To ensure that the Forestry Policy is applied, the following has been agreed:

a. Bank's review of Management Plans under Component 1: The unit at IBAMA responsible for overseeing the Extractive Reserves is CNPT. Any Extractive Reserve cannot undergo use before a management plan is approved. Management plans for Extractive Reserves will be supported under ARPA. ARPA coordination will ensure that these management plans are developed according to IBAMA's rules. Management plans will follow similar guidelines (*Roteiro Metodologico do IBAMA*) in preparation as the management plans used by DIREC for Parks and Reserves. The management plan will consist of four major sections: Utilization plan, Development plan, Business plan, and Duration. Detailed guidelines of these management plans for Extractive Reserves will be included in the Operational Manual. A study carried out by CNPT shows that in the past, Extractive Reserves have the potential to generate income from activities such as rubber, nuts, ecotourism, timber, and environmental services,. The management plans will discuss all of the alternatives. In the Extractive Reserves implemented by CNPT, the management of timber is executed as an artcraft more than for the selling of whole logs. The management plans are prepared by the communities living in the areas and are approved by IBAMA. If the communities request timber extraction as part of a larger program of utilization of the Reserve, the section of the utilization plan would include, among other things, species inventories, mode of extraction, quantity, reforestation procedures and, if available, certification schemes planned.

   The procedures explained above are described in greater detail in Annex 18 and will be part of the Implementation Letter. If the regulation of the SNUC law is passed and the new regulation changes the guidelines that apply currently to preparation of management plans, the Bank will revise the context of the new regulation and its effect on the current project, and if necessary, request the Brazilian government to modify the procedures spelled out in the Implementation Letter.

b. Eligible activities under Component 3: Once the management plans of Extractive Reserves are approved by the Program Committee and IBAMA, and they are reviewed by the Bank, some Extractive Reserves might become eligible to receive funds from the Endowment Fund. The activities eligible have been limited to surveillance and enforcement activities in the intangible area of the Reserve. Additional eligibility criteria would be applied to select an Extractive Reserve for funding. The eligibility criteria are: (1) approved management plan; (2) local inhabitants' association of the Reserve created; (3) cadastre of the Reserve population completed; (4) the Local Advisory Committee established; (5) have an approved POA; (6) the PA needs to have at least 90 percent of its original forest cover; and (7) has fulfilled all the Bank safeguards.

3. Monitoring and evaluation

The M&E program for ARPA (Component 4) includes detailed indicators on changes in land uses and ecosystem health as well as indicator species and social indicators. The M&E system is designed to give early warning to managers of protected areas to permit mitigating actions. The indicators will fully reflect the Project and the EMP. The M&E program will assist and guide the development of activities to be permitted in the parks and reserves.

Category B project is intended to be entirely positive from an environmental standpoint, particularly by promoting the conservation of biodiversity in protected natural areas.

4. Capacity Building in Environmental Assessment

Workshops will be held with Directors and staff of the protected areas of the project to improve their capacity to evaluate environmental impacts, implement the legislation, and design mitigation measures. They also will be given an opportunity to improve on the checklist of activities that will require environmental assessments and activities that should not be permitted, as well as the methods for implementing the checklists to ensure that the rules reflect the practical need in the field.

5. List of Eligible Sustainable-Use Subprojects

Table 18.1 Categories of Eligible Projects or Activities on Management and Use of Natural Resources to be Supported by the Project

Type	Theme	Activity
a) Maintenance and conservation of ecosystems	Forestry	Studies for definition of seedling areas
		Production of native plants
		Detection and evaluation of pests and diseases
		Control of pests and diseases
		Development of sustainable management plan
		Plant production of native species for aforestation and revegetation
		Forest enrichment with desirable species
	Forest fires	Infrastructure and equipment for suppression and prevention of wild fires
		Studies on frequency and risks
		Operation plans and opening gaps for fire control
		Training personnel for FIRE control, suppression and management
	Wildlife	Reintroduction of native species
		Studies and inventories of key species of wildlife and habitats
		Studies of extractable volumes and demands
		Monitoring of populations
		Design of observation trails
		Construction of observatory towers
	Flora	Inventories and population dynamic studies of useful species
		Inventories and studies of endangered species
		Identification and establishment of germplasm banks
		Monitoring of target species
	Wetlands	Hydrological studies
		Inventories and population studies
		Monitoring
		Identification of indicative species of ecosystem health

	Ecotourism	Define areas
		Feasibility studies
		Program of ecotourism
		Study of markets
		Programas de difusión
		Signals and displays
		Certification and marketing
		Training of local communities
		Monitoring
	Environmental education	Design and production of educational materials
		Training
		Environmental Education Program
b) Restoration of ecosystems	Eroded landscapes	Soil restoration and conservation
		Watershed control of erosion
		Cover crops or live barriers using native species
	Invasive and exotic species	Eradication and control of invasive and exotic species
		Inventory of exotic species
	Aforestation and revegetation	Defining native species for aforestation
		Select areas and techniques for aforestation with native species
		Maintenance of aforestations
		Nursery construction and operation
		Training
		Best practices for sustainable use of species
		Follow up
	Wetlands	Hydrology and water quality studies
		Critical aspects of water use and demand
		Water pollution sources and treatment
		Restoration of natural hydrodynamics
		Control of exotic species
		Water volume restoring
		Construction of hydraulic connections (culverts)
		Wetlands monitoring
c) Sustainable Use of biodiversity and productive activities	Aquaculture	Development of managerial skills
		Studies of population dynamics for target species
		* Pilot small model farms including waste recycling and alternative uses
		* Hatcheries
		Sanitary management
		Certification and marketing
		Monitoring
	Agroforestry	Local community training
		Certification and marketing
		Studies for definition of seedling areas

	* Establishment of seedling areas
	* Development of sustainable management plan
	Best practices for species collection methods (training) non-wood products
Artesanal production	Development and enlargement of capacity building
	* Extraction and use of wildlife species
	Certification and markets
	Quality control
	Social involvement workshops
Useful plants	Define areas
	Define species and quantity for extraction
	Inventory of target species
	Identification of plants interesting and useful for local communities
	Ameliorate collection methods (training)
	* Sustainable use of species (training)
	* Nursery construction and maintenance of medicinal and other useful plants
	Certification and marketing
Wildlife	* Breeding facilities for reintroduction, commerce, and hunting interests
	Rustic infrastructure
	Identification of target species and population dynamics
	Management plans for species
	* Extraction and use of wildlife species
	Training in wildlife management and breeding
	Certification and marketing
	Market access studies
Ecotourism	* Trails and infrastructure establishment

Environmental assessment for activity types a and b will be done through a checklist, because they are not expected to have any significant negative impacts on the environment or biodiversity.

Project activities of type c, marked with *, include those that may have low or significant environmental impacts. These will receive a more thorough screening and, if needed, preparation of full documentation to be presented to the responsible agencies in accordance with the SNUC law. The Environmental Assessment or the Management Plan needed to obtain authorization previous to the development of the Project, shall be financed by the Bank. The remaining activities of type c are not expected to have any negative impacts.

In order to determine the projects that may be implemented in the natural protected areas through SINAP II, an analysis of different documents was carried out.

One of the documents was *World Bank Operational Policies and Directives*, the primary objective of which is to ensure that Bank operations do not cause adverse impacts and that they "do not harm." The projects were screened according to these safeguard policies, in order to exclude the project that the Bank would not support, or to apply the environment policies and procedures to prevent environmental impacts. These policies are listed below:

Table 18.2 NATURAL HABITATS OP 4.04
Operational Policies

Bank supports	Bank does not support
▪ Protection, maintenance, and rehabilitation of natural habitats and their functions	▪ Projects that involve the significant conversion or degradation of critical natural habitats, unless there are no feasible alternatives
▪ Natural habitat conservation and improved land use projects sited on lands already converted	
▪ Identification of important natural habitat sites, the ecological functions they perform, the degree of threat to the sites, priorities for conservation measures, managing protected areas and other natural habitats, and monitoring and evaluating projects	

Table 18.3 FORESTRY OP 4.36

Bank supports	Bank does not support
▪ Improvements in the planning, monitoring, and field control of forestry operations to ensure sustainable management of the resources	▪ Commercial logging operations
▪ Projects that are environmentally protective, such as management of protected areas, reforestation of degraded watersheds	▪ Purchase of logging equipment for use in primary tropical moist forest
▪ Support of small farmers, farm, and community forestry	▪ Projects that contravene applicable international environmental agreements
▪ Preservation and light, nonextractive use of forest resources, in forest areas of high ecological value	
▪ Controlled sustained-yield forest management	
▪ Plantations only on nonforested areas or on heavily degraded forestland	

Table 18.4 INDIGENOUS PEOPLES OD 4.20

Bank supports	Bank does not support
▪ Studies and activities to avoid or mitigate potentially adverse effects on indigenous peoples caused by projects	▪ Projects that cause adverse effects to indigenous peoples (their dignity, human rights, and cultural uniqueness) during the project development phase

Table 18.5 CULTURAL PROPERTY OP 4.11

Bank supports

- Preservation and to seek to avoid their elimination
- Protection and enhancement of cultural properties
- *In situ* preservation, studies, and restoration
- Structures relocation for preservation, studies, and restored on alternate sites
- Training and strengthening of institutions entrusted with safeguarding the nation's cultural patrimony
- Reconnaissance surveys on cultural undertaken by a specialist

Bank does not support

- Any project that may affect cultural property

ANNEX 19

STAP TECHNICAL REVIEW

STAP Reviewer Comments

Kenton Miller, Ph.D.
Vice President, World Resources Institute, and
Chair, World Commission on Protected Areas

1. Key Issues

a. **Scientific and technical soundness of the project.** The methodology of the project proposal is drawn from tested and peer-reviewed approaches to the design and selection of protected areas, including the establishment of site priorities (Annex 13). The analysis of socioeconomic data, and threats for the regions of the Amazon, are explicit and particularly helpful. Similarly, for the consolidation of existing PAs, Annex 14 provides a solid methodology for addressing a fundamental task of the Project. Other dimensions of the Project, such as methods for participation and engagement of local communities and indigenous peoples, are likewise sound technically.

b. **Identification of the Global Environmental Benefits and/or Drawbacks of the Project.** The global benefits center on the preservation of biodiversity in the Amazon Basin, the richest set of ecoregions in the world. An extensive system of protected areas represents the most strategic approach for this purpose. What is learned in this endeavor will be of value beyond the immediate set of sites of the Project, including surround regions of Brazil, and also neighboring countries in the Basin. Naturally, with the preservation of such an extensive forest cover, there will be significant global benefit vis-a-vis watershed values and carbon storage in the biomes.

c. **How the Project Fits within the Context of the Goals of the GEF, as well as its Operational Strategies, Programme Priorities, GEF Council Guidance and the Provisions of the Relevant Conventions.** The project design fits with the goals, strategies, and priorities related to forest biomes, biodiversity, water, and carbon sequestration. Most specifically, it supports CBD Article 8 a, b, and j.

d. **Regional Context.** As explained, the Amazon ecosystems are subject to rapid transformation into agriculture, forestry, and infrastructure development. Many of the new crops are farmed as monocultures (soy), and employ extensive agrochemicals and cropping methods that will have major impact on surrounding natural species, populations, and communities. Thus, efforts to preserve examples of the biodiversity of each ecoregion will have to involve relatively large geographic spaces (500,000 hectares and above), and these spaces have to be connected by biological corridors to insure against isolation and excessive fragmentation of forest cover.

e. **Replicability of the Project.** The lessons learned from applying the proposed methods can be expected to serve the design and management of Pas elsewhere in the Amazon region and

neighboring ecoregions, such as the Guyana Shield, upper Parana, and lowland Bolivia and Paraguay. Furthermore, if these lessons learned are made available, they can be of value beyond Brazil, including in the Congo Basin. Of particular interest will be the lessons gathered from the social and institutional aspects of the work, including participation, local communities, and indigenous peoples.

f. **Sustainability of the Project.** Steps have been taken in project design to ensure its sustainability, including funding mechanisms that remain as a legacy to the 10-year program cycle. By working with the Brazilian Biodiversity Fund, for example, the project establishes a long-term financing mechanism. The stakeholders with the greatest self-interest in the areas are fully engaged in the design and execution of the project. Power is decentralized to local stakeholder groups. The blend of both strict PAs and sustainable-use reserves provide ways to both protect biodiversity and options for the direct use of goods and services of the managed ecosystems.

2. Secondary Issues

a. **Linkages to Other Focal Areas.** The Project can be expected to provide significant value to water and watershed conservation, and to carbon sequestration. Depending upon the exact location of the PAs in the system, further values can be anticipated from bio-prospecting, agricultural and pharmaceutical improvements, and ecotourism.

b. **Linkages to Other Programs and Action Plans at Regional or Subregional Level.** The Project links fully with the Brazilian Rain Forest Pilot Program, the endeavor to recognize indigenous land claims, and the Program for Prevention and Control of Burnings and Forest Fires. It also ties into the upper watersheds of the Pantanal, and the planned downstream development programs.

c. **Other Beneficial or Damaging Environmental Effects.** The model and methods proposed for application in the Project will be of particular interest to PA managers and policy makers around the world, especially from forest regions. This is a test of various aspects of PAs management, particularly at such large scales. Also, it represents perhaps some of the most advanced methods and approaches regarding the role and relationship of indigenous peoples to biodiversity conservation.

d. **Degree of Involvement of Stakeholders in the Project.** The participatory approach (Annex 15), indigenous peoples development plan (Annex 16), resettlement framework (Annex 17), and the main text (p. 33) suggest some of the most advanced methods for stakeholder involvement. The project is to be praised for such an extensive commitment to this aspect of the work.

e. **Capacity Building Aspects.** There is very little mention of capacity building per se in the proposal document. While there is considerable work on institutional development, funding mechanisms, and planning, the human factor appears to play a minor role. This is perhaps the greatest weakness of the proposal. How will staff of the related institutions learn by doing the various tasks of the project methods? How many will be involved? How will the new staff to manage the consolidated and new PAs be recruited and prepared for their responsibilities? It is not a simple matter of training or participating, but of learning through engagement in these central components of the management effort.

f. **Innovativeness of the Project.** The project is very innovative. The methods on PA consolidation and the participation of the communities and indigenous groups are particularly noteworthy. A good case in point is on p. 47, regarding the establishment of new PAs with consultation and participation including the resolution of land tenure conflicts. The idea that indigenous land claims come first, prior to designation of PAs, is novel.

Bank's Response to STAP Reviewer's Comments

The Bank wishes to thank the STAP reviewer for all the positive comments received. Regarding the only concern raised by the reviewer on the need to ensure a stronger capacity building element to the project, the Bank team has included additional training activities in different components. Component 2 has a training sub-component to strengthen the PAs personnel and partners in the following areas of expertise: PA management, conflict resolution techniques, fund raising, accounting, reporting, etc.. Component 4 has included training activities in monitoring and evaluation and Component 5 has included training in procurement and financial management. In addition, only recently, GTZ has agreed to provide technical assistance to the project in the following areas of expertise: institutional strengthening, technical issues of PA management, monitoring and evaluation and financial management.

MAP SECTION

IBRD 32026

BRAZIL
AMAZON REGION PROTECTED AREAS PROJECT

- EXISTING PROTECTED AREAS
- INDIGENOUS LANDS
- LEGAL AMAZON BOUNDARY
- MAIN PAVED ROADS
- UNPAVED ROADS
- RAILROADS
- RIVERS
- STATE BOUNDARIES
- INTERNATIONAL BOUNDARIES

0 100 200 300 400 500
KILOMETERS

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IMAGING

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