PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT
FROM THE GLOBAL ENVIRONMENT FACILITY TRUST FUND
IN THE AMOUNT OF US$15.89 MILLION

TO THE

FUNDO BRASILEIRO PARA A BIODIVERSIDADE (FUNBIO)
OF THE FEDERATIVE REPUBLIC OF BRAZIL

FOR THE

AMAZON REGION PROTECTED AREAS PROJECT PHASE 2
(ARPA 2)

January 27, 2012

Sustainable Development Department
Brazil Country Management Unit
Latin America and the Caribbean Region

This document is being made publicly available prior to Board consideration. This does not imply a presumed outcome. This document may be updated following Board consideration and the updated document will be made publicly available in accordance with the Bank’s policy on Access to Information.
CURRENCY EQUIVALENTS

(Exchange Rate Effective September 29, 2011)

Currency Unit = BRL Brazilian Real
BRL 1.84 = US$ 1.00
US$0.54 = BRL 1.00

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ANAMA National Association of Municipalities
AND National Development Agenda
APS Amazon Partnership Strategy
APF Amazon Partnership Framework
APA Environmental Protection Area
ARPA Amazon Region Protected Areas Project
BNDES National Bank for Economic and Social Development
CAS Country Assistance Strategy
CMC Conflict Mediation Committee
CMU Country Management Unit
CNEA National Registry of Environmental Entities
CNPT National Center for Traditional Populations
COP Conference of the Parties
CP Program Committee
CPS Country Partnership Strategy
CG General Coordination
DIMAN Directorate of Creation and Management of Protected Areas.
DIREC Directorate of Ecosystems
ECI Conservation and Investment Strategy
EMP Environmental Management Framework
EOP End of Project
FAP Protected Areas Trust Fund
FAUC Protected Areas Evaluation Tool
FUNBIO Brazilian Biodiversity Fund
FUNAI National Indian Foundation
FTC FUNBIO’s Technical Commissions
GEF Global Environment Facility
GEFSEC Global Environment Facility Secretariat
GOB Government of Brazil
GHG Greenhouse Gas
GTZ German Agency for Technical Cooperation
HDI Human Development Index
ICMBio Chico Mendes Institute for Biodiversity Conservation
IBGE Brazilian Institute of Geography and Statistics
IBRD International Bank for Reconstruction and Development
INPA National Institute for Amazon Research
INCRA National Institute for Agrarian Reform
IPAM Institute for Environmental Research in the Amazon
IPAPs Indigenous Peoples Action Plans
IPPF Indigenous Peoples Planning Framework
KfW Kreditanstalt für Wiederaufbau
LULUCF Land Use, Land Use Change and Forestry
MMA Ministry of Environment
MIS Management and Information System
NAE Núcleo de Assuntos Estratégicos da Presidência da República
SBD Standard Bidding Documents
OSCIIP Public Interest Civil Society Organization
PA Protected Area
PAS Programa Amazônia Sustentável (Sustainable Amazon Program)
PCA Scientific Advisory Panel
PNAP Plano Nacional de Áreas Protegidas (National Protected Areas Plan)
POA Annual Operation Plan
PROARPA ARPA Coordination Unit within FUNBIO
PROBIO National Biodiversity Project
REDD+ Reducing Emissions from Deforestation and Forest Degradation
ORAF Operational Risk Assessment Framework
RF Resettlement Framework
SBF Secretariat of Biodiversity and Forests
DAAM Department for Articulation of Actions in the Amazon
SECEX Executive Secretariat, Ministry of Environment
SiSARPA ARPA’s Integrated System of Coordination and Management
SNUC National System of Protected Areas
UCP Project Coordination Unit
WB World Bank
WWF World Wildlife Fund

Regional Vice President: Hasan Tuluy
Country Director: Makhtar Diop
Sector Director: Ede Jorge Ijjasz-Vasquez
Sector Manager: Karin Kemper
Task Team Leader: Adriana Moreira
BRAZIL
Amazon Region Protected Areas Project - Phase 2 (GEF)

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iv
PAD DATA SHEET

Brazil

Amazon Region Protected Areas Project - Phase 2 (GEF)

PROJECT APPRAISAL DOCUMENT

LATIN AMERICA AND CARIBBEAN
LCSEN

Date: January 20, 2012
Country Director: Makhtar Diop
Sector Manager/Director: Karin Erika Kemper
Project ID: P114810
Focal Area: Biodiversity
Environmental Assessment: Partial Assessment
Lending Instrument: Specific Investment Loan

Team Leader: Adriana Moreira
Sectors: General agriculture, fishing and forestry sector (60%); Central Government administration (20%); Sub-national Government administration (20%)
Themes: Other rural development (25%); Biodiversity (25%); Environmental policies and institutions (24%); Participation and civic engagement (13%); Land administration and management (13%)
Joint IFC:
Joint Level:

Project Financing Data

[ ] Loan [ ] Credit [X] Grant [ ] Guarantee [ ] Other:

For Loans/Credits/Others:
Total Bank financing (US$m.): 0.00
Proposed terms:

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<th>Source</th>
<th>Local</th>
<th>Foreign</th>
<th>Total</th>
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</thead>
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<tr>
<td>BORROWER/RECIPIENT</td>
<td>30.00</td>
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<td>Global Environment Facility (GEF)</td>
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<td>GERMANY: KREDITANSTALT FUR WIEDERAUFBAU (KFW)</td>
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<td>World Wildlife Fund</td>
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<td>10.00</td>
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<tr>
<td>Total:</td>
<td>85.89</td>
<td>0.00</td>
<td>85.89</td>
</tr>
</tbody>
</table>

Borrower:

**Responsible Agency:**

**Fundo Brasileiro para a Biodiversidade (Funbio)**
Largo do IBAM, 1 Humaita
22271-070
RJ Brazil
Tel: (55-21) 2123-5326
Ministry of Environment  
Brasilia DF  
Brazil  
Trajano.quinhoes@mma.gov.br  

<table>
<thead>
<tr>
<th>Estimated disbursements (Bank FY/US$m)</th>
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</thead>
<tbody>
<tr>
<td>Annual</td>
</tr>
<tr>
<td>Cumulative</td>
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</table>

Project implementation period: Start May 2, 2012  End: November 30, 2015  
Expected effectiveness date: April 30, 2012  
Expected closing date: November 30, 2015

Does the project depart from the CAS in content or other significant respects?  
Ref. PAD I.C. [ ]Yes [X] No

Does the project require any exceptions from Bank policies?  
Ref. PAD IV.G. [ ]Yes [X] No

Have these been approved by Bank management? [X]Yes [ ] No

Is approval for any policy exception sought from the Board? [ ]Yes [X] No

Does the project include any critical risks rated “substantial” or “high”?  
Ref. PAD III.E. [ ]Yes [X] No

Does the project meet the Regional criteria for readiness for implementation?  
Ref. PAD IV.G. [X]Yes [ ] No

Project development objective  
Ref. PAD II.C. Technical Annex 3

The Project Development Objective is to expand and consolidate the system of Protected Areas in the Amazon Region, and to strengthen the mechanisms for its financial sustainability.

Global Environment objective  
Ref. PAD II.C. Technical Annex 3

The Global Environmental Objective is the same as the Project Development Objective (PDO), which is to expand and consolidate the system of Protected Areas in the Amazon Region, and to strengthen the mechanisms for its financial sustainability.

Project description  
Ref. PAD II.D. Technical Annex 4

ARPA Phase 2 will retain the structure of Phase 1, and include the following components:

**Component 1 - Creation of new Protected Areas.** Creation of approximately an additional thirteen million five hundred thousand (13.5 million) hectares of new Protected Areas in the Amazon Region to those created under ARPA – Phase 1.

**Component 2 – Consolidation of Protected Areas.** Consolidation of approximately thirty two million (32 million) hectares of Protected Areas, including new Protected Areas established under Component 1.

**Component 3 - Long-term sustainability of Protected Areas.** Generation of additional revenue.
for the Endowment Fund and development of innovative alternatives for the financing of Protected Areas.

**Component 4 - Project coordination, monitoring, management and communication.**
Strengthening coordination, monitoring, management, and communication for the carrying out of the Project

<table>
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<th>Safeguard policies triggered?</th>
<th>○ Yes  ⬜ No</th>
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<tr>
<td>Environmental Assessment (OP/BP 4.01)</td>
<td>⬜ Yes  ○ No</td>
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<td>Natural Habitats (OP/BP 4.04)</td>
<td>⬜ Yes  ○ No</td>
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<td>Forests (OP/BP 4.36)</td>
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<td>Pest Management (OP 4.09)</td>
<td>○ Yes  ⬜ No</td>
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<td>Physical Cultural Resources (OP/BP 4.11)</td>
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<td>Indigenous Peoples (OP/BP 4.10)</td>
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<td>Involuntary Resettlement (OP/BP 4.12)</td>
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<td>Safety of Dams (OP/BP 4.37)</td>
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<td>Projects on International Waterways (OP/BP 7.50)</td>
<td>○ Yes  ⬜ No</td>
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<tr>
<td>Projects in Disputed Areas (OP/BP 7.60)</td>
<td>○ Yes  ⬜ No</td>
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</tbody>
</table>

**Conditions and Legal Covenants:**

<table>
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<tr>
<th>Financing Agreement Reference</th>
<th>Description of Condition/Covenant</th>
<th>Date Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article 5.01</td>
<td>The execution and delivery of the Grant Agreement on behalf of Funbio, duly authorized or ratified by all necessary Governmental action.</td>
<td>Before effectiveness</td>
</tr>
<tr>
<td>Schedule 2, Section 1, B. 1</td>
<td>Funbio shall amend the MMA Implementation Agreement on terms and conditions acceptable to the World Bank, and, thereafter shall maintain said agreement in full force and effect.</td>
<td>Until completion of the Project</td>
</tr>
<tr>
<td>Schedule 2, Section 1, B. 2</td>
<td>Funbio shall amend the ICMBio Implementation Agreement on terms and conditions acceptable to the World Bank, and, thereafter shall maintain said agreement in full force and effect.</td>
<td>Until completion of the Project</td>
</tr>
<tr>
<td>Schedule 2, Section 1, B. 3</td>
<td>Funbio shall amend the State Cooperation Agreements on terms and conditions acceptable to the World Bank, and, thereafter.</td>
<td>Not later than July 1, 2012</td>
</tr>
</tbody>
</table>
shall maintain said agreement in full force and effect, until completion of the Project.

**Schedule 2, Section 1, B. 4**

Funbio shall cause MMA to enter into the FUNAI Cooperation Agreement with FUNAI, under terms and conditions substantially in accordance with those in the Indigenous Peoples Planning Framework to set forth that MMA and FUNAI shall, in the event that the creation or consolidation of a Protected Area will affect Indigenous Peoples living in and around a Protected Area, comply with the requirements of the Indigenous Peoples Planning Framework and carry out the pertinent IPAP in accordance with its terms and in a manner acceptable to the World Bank.

Not later than thirty (30) days after the Effective Date of the Grant Agreement

**Schedule 2, Section 1, B. 5**

Funbio shall exercise its rights and comply with its obligations under the MMA Implementation Agreement, and the ICMBio Implementation Agreement, and each of the State Cooperation Agreements in such a manner as to protect the interests of Funbio and the World Bank and to accomplish the purposes of the GEF Trust Fund Grant and, except as the World Bank shall otherwise agree, Funbio shall not assign, amend, abrogate, waive or fail to enforce the MMA Implementation Agreement or the ICMBio Implementation Agreement, or any of the State Cooperation Agreements or any provision thereof.

During the implementation of the Project

**Schedule 2, Section 1, B. 6**

Funbio shall have executed and delivered the Co-financing Agreements and all conditions precedent to their effectiveness or to the right of Funbio to make withdrawals under them (other than the effectiveness of this Agreement) have been fulfilled.

Not later than July 1, 2012.
I. Strategic Context

A. Country Context

1. Brazil depends on its natural resources for economic growth, in which agricultural expansion and large hydroelectricity plants play important roles, yet new infrastructure projects continue to threaten its ecosystems. Natural resources in general are the base for a large portion of production and exports from Brazil. In 2008, agriculture accounted for 6.7 percent of GDP. In 2007, timber exports totaled US$ 373.2 million, and agriculture and livestock exports exceeded US$ 10 billion. Brazil faces the ongoing challenge of balancing conservation of the largest tropical rainforest on the planet with regional economic development, particularly within the Amazon biome. Therefore, continued partnership and support are needed to build on the achievements of ARPA’s first phase and increase the number of Protected Areas in the Amazon Region.

2. The 24 million people of the Amazon region are characteristically poorer and less urbanized than the rest of Brazil. This rural population consists of farmers and traditional peoples including indigenous peoples, some of whom are isolated or recently contacted. The Amazon region contains 13 percent of Brazil’s population, with a GDP share of only 7 percent. The indigenous population in the Amazon is represented as: 450,000 people, 170 known ethnic groups, and 160 indigenous languages still extant, reflecting the region’s rich cultural diversity. Indigenous peoples and traditional communities depend on natural resources for their livelihoods and their land use practices are considered to have little negative impact on the forest compared with other land uses practices.

B. Sector and Institutional Context

3. The Brazilian Amazon covers over 4.1 million km², supporting the livelihoods of 10 million people, through forests, agricultural lands, and extensive aquatic systems. The Amazon also provides national and global ecosystem services as a major carbon sink, a home to globally significant biodiversity, a producer of freshwater regulating services, and a source of new medicines. According to the InterGovernmental Panel on Climate Change (IPCC), global deforestation accounts for roughly 20 percent of the world’s CO₂ emissions. Due to Brazil’s relatively clean energy matrix, carbon emissions from land use change and deforestation represent 45 percent of Brazil’s total annual emissions. Multiple strategies have been implemented to counter the destruction of the tropical rainforest, and the establishment of Protected Areas (PAs) is proving to be a very effective one.

4. Due to a series of Government measures to improve forest protection, which include law enforcement, deforestation monitoring, and the strategic creation of Protected Areas, deforestation rates have fallen drastically from 27,772 km² in 2004 to 6,280 in

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1 IPEA Data. Available August 2010: http://www.ipeadata.gov.br
2 Veríssimo. et. al. Biodiversity in the Brazilian Amazon, 2004, Estação Liberdade Ed.
While deforestation has plunged the size and location patterns of deforestation have changed: from large areas close to roads, to a more widespread pattern of small parcels. Nevertheless, enforcement actions outside PAs tend to reach their limit, and PAs and positive economic incentives are becoming increasingly strategic in the promotion of sustainable landscape management.

5. Since 1997, the Government of Brazil has been making substantial progress on the expansion of the system of Protected Areas. However, this expansion is often constrained by the lack of financial resources. ARPA Phase 1(P058503) was very successful in leveraging resources and in attracting local and international donors’ support and GEF funding accounts for a smaller portion of the program’s financing – 37% in Phase 1 and 22% in Phase 2. Resources invested have had a significant impact on the PA creation rate. If the creation trend before the ARPA program (from 1980 to 2003) had been maintained, today Brazil would have approximately 37 million hectares of Protected Areas in the Amazon region. With the contribution of the ARPA program, the current area is 59.6 million hectares - an increase of 63%. Though the numbers of public Protected Areas and the area covered by them have increased at an impressive rate over the past ten years, these areas still require strategic investments (e.g. geo-referencing) in order to achieve full consolidation.

6. The PAs supported by ARPA together with the law enforcement and deforestation monitoring measures adopted by the Government have been important in achieving deforestation reduction. It is estimated that the recent expansion of PAs in the Brazilian

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5 Data from Prodes – www.obt.inpe.br/prodes.
6 As a reaction to the increased environmental enforcement there has been a movement to change the Forest Code, allowing more flexibility to producers and forgiving past environmental damages. One of the major topics of concern is the proposal to reduce the “legal reserve”, a portion of each property that has to be kept under natural vegetation, which is 80% for the Amazon. Such proposed changes face strong opposition from environmentalists, but underscore the strategic importance of publicly owned Protected Areas and indigenous lands for the future of the Amazon forest.
Amazon reduced the region’s deforestation by 37% between 2004 and 2006. The creation of PAs has an important impact on avoiding deforestation by providing clear policy signs and environmental enforcement, supporting traditional peoples, redirecting territorial occupation, and making conservation-based businesses more attractive. The creation of PAs in Brazil is strategically guided by participatory landscape planning that covers the entire country, using the state-of-the-art conservation planning methodologies and involving lead scientists and representatives of NGOs and indigenous peoples, among others. Funded by ARPA’s first phase, the last planning exercise involved over 400 people: one expert workshop with over 100 scientists and NGO representatives, two regional workshops with stakeholder representatives and a specific workshop for indigenous territories and surrounding areas. Planning took into consideration the uniqueness of conservation targets, level of projected threats, connectivity, and multiple uses for the landscape, including the creation and consolidation of PAs in integration with indigenous lands (to form large blocks of protected lands), and sustainable territorial development.

C. Higher Level Objectives to which the Project Contributes

7. The ARPA program supports the GEF's Global Operational Strategy by contributing to the long-term protection of Brazil’s globally important ecosystems. Specifically, the proposed project (ARPA Phase 2) 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.

8. The proposed project contribute directly to The World Bank Group’s Country Partnership Strategy 2012-2015 (Report#63731) discussed by Board of Executive Directors on November 1, 2011, has under the “Strategic Objective 4: Improve sustainable natural resource management and climate resilience”. The proposed project is fully consistent with the CPS recommendations, particularly the need for protecting priority ecosystems. The proposed project builds on the achievements of the PPG7 and earlier Global Environment Facility (GEF) operations in Brazil. As part of the CPS, the Bank developed the Amazon Partnership Framework (APF). The APF aims to achieve both local and global environmental benefits based on the Bank’s experience and capacity and the full objectives of the Government's Programa Amazônia Sustentável (PAS).

9. ARPA’s Phase 2 will be developed and implemented in close coordination with other similar or complementary projects in the Amazon region. The project is expected to coordinate with the Bank’s regular investment operations in the area, including the Pará Integrated Rural Development Project, the Acre Social and Economic Inclusion Project, and the Alto Solimões Basic Services and Sustainable Development Project. Furthermore, the project will also benefit from the actions implemented by the GEF-funded National

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Biodiversity Mainstreaming and Institutional Consolidation Project (PROBIO II), which aims to strengthen biodiversity awareness in several Government agencies and in the private sector.

II. Project Development Objectives

A. Project Development Objectives

10. **The Global Environmental Objective is the same as the Project Development Objective (PDO),** which is to expand and consolidate the system of Protected Areas in the Amazon Region, and to strengthen the mechanisms for its financial sustainability.

11. The specific objectives of the project are: (i) to create 13.5 million hectares of additional new Protected Areas in the Amazon; (ii) to consolidate 32 million hectares of Protected Areas; and (iii) to further capitalize the ARPA Endowment Fund (FAP).

B. Project Beneficiaries

12. **ARPA will generate global, regional, and local environmental benefits.** Protecting large land areas in the Amazon has environmental benefits at the global level, both in terms of counteracting greenhouse gas emissions and for biodiversity preservation. Regionally, countries sharing the Amazon including Bolivia, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela will also gain environmental benefits from mosaics and large Protected Areas that allow for greater species preservation in Brazil. Locally, water quality and local climate patterns depend on the natural forest stock, and can be negatively affected by deforestation.

13. **ARPA will benefit local populations living inside PAs and in their surrounding areas.** Building on the experience of the first phase, ARPA Phase 2 also includes (i) targeted support for sustainable action plans for communities inside or near PAs, and (ii) support for the formation and maintenance of PA management councils which will allow for structured, local participation in decision making related to Protected Areas. Sustainable use PAs created and implemented under the ARPA program will benefit the traditional communities living inside them by providing secure land and resource access in a form that is the most appropriate for traditional management systems (a combination of individual and communal management). The project should also benefit local populations by contributing to formalizing land tenure, considering indigenous peoples interests, and providing opportunities for income generation associated with the Protected Areas.

C. PDO Level Results Indicators

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9 Institution created by the National Protected Areas Law, either consultative or deliberative, management councils are the official forums for local stakeholder participation in PA management, and have generally been composed of 50% representatives of civil society and 50% from the Government.
14. The GEO/PDO level indicators and respective targets are:

- Area of new Protected Areas created in the Brazilian Amazon: 13.5 million hectares.
- Area of Protected Areas consolidated in the Brazilian Amazon: 32 million hectares.
- Capitalization of the Protected Areas Fund (FAP): 150% increase over the level of current funds.

III. Project Description

A. Project components

15. As most of the targets of ARPA’s Phase 1 have been met, the present proposal for Phase 2 will scale up the work carried out during Phase 1, building on its achievements, innovations and lessons learned. ARPA Phase 2 will retain the structure of Phase 1 and include the following components:

16. Component 1 - Creation of new Protected Areas. Creation of approximately an additional thirteen million five hundred thousand (13.5 million) hectares of new Protected Areas in the Amazon Region to those created under ARPA 1, by, inter alia: (i) Identifying new areas in the Amazon Region to be designated as Protected Areas; (ii) Carrying out environmental, socio-economic, and land tenure assessments as needed, including public consultations and workshops, in respect to the new areas identified in the Amazon Region to be designated as Protected Areas; and, (iii) Establishing new Protected Areas by enacting the necessary decrees, followed by demarcation of the boundaries of the Protected Areas in question.

17. These Protected Areas will include parks, biological reserves, ecological stations, extractive reserves, and sustainable development reserves. These areas will be divided between strict protection and sustainable use PAs. The number of hectares allocated to each type of protected area will be determined once the process of identifying Protected Areas is underway, considering the needs of local populations and the conservation priorities. (see Annex 2 for details).

18. Component 2 – Consolidation of Protected Areas. Consolidation of approximately thirty two million (32 million) hectares of Protected Areas, including new Protected Areas established under Component 1 of the Project and other Protected Areas already established before implementation of this Project, by, inter alia: (i) Providing technical assistance to strengthen the Recipient’s capacity in managing the consolidation of Protected Areas and carrying out works to build certain structures, such as visitor centers, office space, guard-posts, to support consolidation in selected Protected Areas; (ii) Preparing, implementing and evaluating Management Plans for Protected Areas; (iii) Promoting better coordination and institutional enhancement of local communities and organizations; and, (iv) Providing training to relevant staff in the management of Protected Areas.

19. Consolidation, or formalizing management of Protected Areas, is essential to achieving conservation goals, and to guaranteeing that conservation areas remain protected long into the future. Main activities of consolidation will include land demarcation, provision of basic equipment for enforcement, staffing in Protected Areas, and capacity building for staff,
according to the Strategic Capacity Building Plan to be developed. This component will also carry out community integration actions to promote a better coordination and institutional enhancement of the local communities and organizations, fostering their participation in PA management and access to public and private policies, programs, and financing for the sustainable use of resources inside the PAs. New management plans will be produced with a special focus on the impacts of climate change, community-based management, and protecting threatened species. Actions taken in the consolidation process will depend on the type of protected area and the current level of management capacity. PA management councils will be created to foster more participatory management. ARPA Phase 1 focused primarily on consolidating strict protection PAs. The second phase will focus on replicating consolidation activities in sustainable use PAs. The consolidation process is described in detail in Annex 2.

20. Component 3 - Long-term sustainability of Protected Areas. Generation of additional revenue for the Endowment Fund and development of innovative alternatives for the financing of Protected Areas, by, inter alia:

1. Providing technical assistance to: (a) develop and implement strategies to raise additional revenue for the Endowment Fund; and, (b) strengthen the Recipient’s capacity to (i) carry out procurement of goods, works and services related to investments (acceptable to the World Bank) to be financed out of the proceeds of the Endowment Fund, and (ii) develop effective and transparent mechanisms for disbursement of the proceeds of the Endowment Fund and a long term sustainability plan for projecting the financing of the Endowment Fund, including improvement of relevant information technology tools.

2. Carrying out studies to identify management and funding options to support the long-term economic sustainability of Protected Areas.

21. One of the main achievements of Phase 1 was the establishment and initial capitalization of the Fundo de Áreas Protegidas (FAP Endowment Fund), which reached US$ 27.2 million at the end of Phase 1. (FAP Endowment Fund) was capitalized with resources from ARPA’s donors (GEF, KfW, and WWF) and with over US$ 3 million from other donors, such as O Boticário and Natura (two Brazilian cosmetic companies). The diversity of donors demonstrates ARPA’s high profile as a major project in the Amazon. This component will work to generate additional revenue for FAP, with a goal of increasing the endowment fund to US$ 70 million (an increase of 150%) by the end of Phase 2 (see Annex 2 for further details).

22. Component 4 - Project coordination, monitoring, management and communication. Strengthening coordination, monitoring, management, and communication for the carrying out of the Project, by, inter alia: (i) Establishing efficient management arrangements and

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10 “Strict protection” PAs (e.g., national parks, biological reserves and ecological stations), which are those areas created primarily for conservation objectives and prohibit the exploitation of natural resources and other productive activities. “Sustainable use” PAs (e.g., extractive reserves and sustainable use reserves) that allow for the direct use and exploitation of natural resources following norms stipulated in their respective management plan.
strengthening the dialogue and coordination among stakeholders under the Project; (ii) Providing technical assistance for strengthening management of financial resources, procurement and budget allocation and monitoring under the Project; (iii) Developing and implementing a communication strategy, including improving and maintaining the Program’s website, and preparing, disseminating and publishing materials promoting the Program; and, (iv) Monitoring and evaluating the effectiveness of Project activities.

23. This component will focus on improving management and monitoring based on the arrangements established during Phase 1, and will include work across the three main components. This component will support the improved operation of the Project Coordination Unit (UCP) within the Ministry of Environment (MMA), as well as the operation of FUNBIO (see Annex 2 for further details).

B. Project Financing

1. Lending instrument

24. The US$ 85.89 million project will be partially financed by a full–sized, stand-alone GEF grant in the amount of US$ 15.89 million. ARPA Phase 2 is also supported by several donors, including a KfW grant (US$ 30 million), contributions by WWF (US$ 10 million), and counterpart funds from the Brazilian Government (US$ 30 million). All donor funds will be channeled through FUNBIO. The contribution from the Government, KfW, and WWF will be provided as parallel financing (separate activities to be financed by each donor).

2. Project Financing Table

<table>
<thead>
<tr>
<th>Component and/or Activity</th>
<th>GEF (US$ million)</th>
<th>Co-Funding (US$ million)</th>
<th>Total (US$ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Creation of new Protected Areas</td>
<td>1.00</td>
<td>2.50</td>
<td>3.50</td>
</tr>
<tr>
<td>2) Consolidation of Protected Areas</td>
<td>11.00</td>
<td>56.00</td>
<td>67.00</td>
</tr>
<tr>
<td>3) Long-term sustainability of Protected Areas</td>
<td>0.40</td>
<td>1.50</td>
<td>1.90</td>
</tr>
<tr>
<td>4) Project coordination, monitoring, management and communications.</td>
<td>3.49</td>
<td>10.00</td>
<td>13.49</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15.89</strong></td>
<td><strong>70.0</strong></td>
<td><strong>85.89</strong></td>
</tr>
</tbody>
</table>

C. Lessons Learned and Reflected in the Project Design

25. According to an independent evaluation\(^{11}\), aspects in which Phase 2 can strengthen ARPA’s performance include:

- Protecting a greater land area in the Amazon in order to ensure the greatest possible conservation benefits and avert ongoing land conversion and human encroachment.

It is also important to invest in the PAs consolidation by providing adequate infrastructure as well as human and financial resources to guarantee that designated areas are effectively protected.

- Including the latest findings from conservation biology in the selection of Protected Areas, such as the importance of mosaics; including the revised data on eco-regional representation and the recommendation for a minimum size of 10,000 ha per protected area, where possible.
- Despite best efforts, an efficient and functioning biodiversity monitoring and evaluation system focusing on species monitoring was not established under ARPA Phase 1. An improved and functioning comprehensive monitoring and evaluation system is needed.

26. In addition, the institutional arrangement used by ARPA Phase 1, with a public-private partnership, in which the Government carried out most of the technical execution, while the financial management and procurement activities were carried out by FUNBIO, has proven to be effective and can be replicated. However, several aspects of the project will need improvement. It will be necessary to: (i) strengthen the Government teams; (ii) establish greater financial monitoring and reporting capacity; and (iii) implement more flexible procurement rules in FUNBIO. In addition, the project should hire more qualified local staff and implement human resources policies (i.e. appropriate job descriptions and compensation for remoteness and labor conditions) to improve team stability. The HR policies would improve project management and ensure that ARPA becomes institutionalized in the federal and state agencies.

27. **PA management and implementation guidelines have a long lasting effect on project costs, PA sustainability and PA effectiveness.** The lessons learned in Phase 1 show that there are a number of critical topics to be improved: management plans, infrastructure, environmental enforcement, financial ceilings for recurrent costs, and deadlines for consolidation of the PAs. The lessons from Phase 1 show that the financial ceilings for recurrent costs should be set in order to eliminate perverse incentives to stay in the consolidation stage rather than moving on to being supported by FAP funds. In addition to this, MMA will implement deadlines for PA consolidation.

28. Lessons learned show that the financial sustainability will depend on a set of mechanisms in addition to the FAP Endowment Fund, such as REDD and environmental compensation mechanisms. The potential for fundraising in the form of donations for the FAP has been evaluated as ineffective due to the global economic crisis and redirection of philanthropy and Government donations towards poor countries and social issues. The most promising way of fundraising is payments for REDD, and Brazil has been a leading actor with the establishment of the Amazon Fund within BNDES (National Bank for Economic and Social Development). Another possibility is to encourage well-managed PAs to serve as REDD pilot sites. In addition, the environmental compensation mechanism already in place, in which projects that cause significant environmental impact are required by law to invest in PAs, has great potential to become one of the major non-Government sources for the PAs.
IV. Implementation

A. Institutional and Implementation Arrangements

29. The project will continue to be executed by the Ministry of Environment (MMA), the Brazilian Biodiversity Fund (FUNBIO), the Chico Mendes Institute for Biodiversity Conservation (ICMBio for the federal PAs\textsuperscript{12}), and state agencies (for specific Protected Areas in their jurisdictions). MMA will be responsible for the overall coordination of the four components, and through the Project Coordination Unit, MMA will: (a) oversee the preparation of annual operating plans; (b) prepare supervisory reports or any request for information by donors or the Bank; (c) carry out monitoring and evaluation of project activities; (d) confirm that subsidiary agreements are effectively carried out; (e) secure compliance with project safeguards in collaboration with ICMBio and State environment agencies; and (f) conduct communication and information-dissemination programs about ARPA. FUNBIO will be responsible for procurement and financial management, for both the project and for FAP. ICMBio and State agencies will: (i) coordinate the technical implementation in their own PAs; (ii) identify and hire staff for PAs for implementation of activities at the local level, and (iii) complement with their own Governmental budgets or other funds the support for project implementation. (see Annex 3 for detailed description of implementation arrangements).

30. The arrangements of ARPA Phase 2 are defined in a Presidential Decree No. 4326 of August 8, 2002, signed during the first Phase of implementation. Implementation agreements between MMA and FUNBIO, and between ICMBio and FUNBIO were signed in the first Phase and will be renewed as needed. The implementation agreements define each institution's responsibilities and obligations under the project. For state participation, a model cooperation agreement between their environmental secretariats and agencies, the Brazilian Federal Government, through MMA, and FUNBIO is included in the Project Operational Manual. The Operational Manual, proposed by the UCP and FUNBIO, and approved by the Program Committee, defines details of the implementation procedures which are not defined in the PAD. As in Phase 1, the Program Committee may delegate the approval of parts of the content of the Manual to specific project partners or committees, such as the Technical Forum.

B. Results Monitoring and Evaluation

31. Project monitoring and evaluation will be carried out in three areas: (i) financial monitoring, (ii) monitoring of implementation and management of the Protected Areas, and (iii) environmental monitoring. As the first two areas worked well in Phase 1, Phase 2 will introduce only a few improvements, while environmental monitoring was reformulated to include local level monitoring where possible, to complement satellite monitoring of the vegetative cover.

\textsuperscript{12} Until 2007, the federal PAs were under the management of the Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (IBAMA), which was then split and had the PA management transferred to a new institution, the Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio).
32. As in Phase I, financial monitoring will be carried out by FUNBIO, which is responsible for approving and tracking the distribution of funds. Working with the UCP, FUNBIO will keep records of: (i) funds spent in each PA by component, sub-component, and unit; (ii) ongoing revisions of planned distribution based on historic spending in each PA and progress towards meeting the targets for consolidation; (iii) comparative analysis of quality and cost of goods and services procured; and (iv) Independent financial audit carried out annually. Building on the Phase 1 systems, FUNBIO is developing Cérebro 2, the enhanced version of the software applied for project financial monitoring.

33. The monitoring of project progress in the Protected Areas will be coordinated by the Project Coordination Unit (UCP). The UCP will: (i) at the strategic level, evaluate and update, as needed, project objectives and targets in the project results matrix; (ii) at the management level, further develop and implement the FAUC (Monitoring Tool for Assessing Effectiveness, an adaptation of the GEF Management Effectiveness Tracking Tool for project management), and monitor performance against project goals; (iii) at the operational level, monitor the implementation of annual operating plans (POAs); and (iv) annually verify, selecting a random sample of subcomponents (establishment, consolidation, and financial sustainability subcomponents) supported by ARPA for site evaluation, progress reported by the FAUC monitoring tool.

34. The environmental monitoring of the PAs will be coordinated by the UCP, advised by the Scientific Advisory Panel (PCA), with participation of the PA agencies and PA teams. Phase 1 indicated that biodiversity monitoring at the PA level for all areas supported by the project is beyond the scope and timeline of the ARPA program. Nevertheless, to enhance environmental monitoring within the project’s budget, monitoring systems will be established in the PAs undergoing stage 2 of the consolidation process, in accordance with the Conservation and Investment Strategy (ECI). Selected stage 2 PAs will choose between monitoring biodiversity or socio-environmental indicators. Satellite deforestation monitoring, which is continuously carried out for the entire Amazon by INPE, will cover all ARPA-supported PAs and complement local PA monitoring where possible.

C. Sustainability

35. Project sustainability will be ensured by concentrating efforts on raising revenue for the FAP trust fund, providing institutionalization of the PAs program at the federal, state, and local levels of Government, and within all relevant environment and development agencies. Furthermore, a third phase of ARPA will prioritize sustainability of the project results, guaranteeing that enforcement and effective management of Protected Areas continues to be a Governmental priority supported with sufficient resources.

V. Key Risks and Mitigation Measures

36. The overall implementation of risk for the financed activities is rated “Low”. The main risks identified are the following:
37. Brazilian economic growth and agricultural expansion will increase pressure on natural resources, but ARPA will continue to be implemented together with administrative policies, land tenure regularization, and other policies that have made deforestation plunge in the last five years. Economic activities, such as soybean and other grain production, logging, and cattle expansion, pose an increasing risk to forest resources. ARPA will continue to be implemented in coordination with policies that deal with the previously mentioned challenges and with measures to mitigate those risks.

38. Political and electoral interests tend to make environmental protection more “flexible” but the new Government, which took office in January 2011, has committed to maintaining forest protection. Despite the Federal Government support for the measures and activities defined under this project, there is a political risk during its implementation, as municipal elections will occur in 2012. Regionally, forest protection tends to be unpopular with part of the voters involved in agriculture, ranching, and timber extractions. Often, public forest land is used as an “electoral currency” during election time. It is expected that the commitment of the Federal Government, along with the previously mentioned policies, and the force of national public opinion, will minimize local risks.

39. Delays in project approval may disengage teams and harm project results, but the task team will assist the Federal Government and its relevant partners in order to keep the process moving forward. There is a moderate risk that project approval delays may occur owing to the many steps in the negotiation and approval process. To mitigate this risk to the project, the task team will remain in close contact with the Federal Government, its partners and other interested stakeholders who could affect project outcomes to obtain all approvals in a timely manner.

40. The project involves activities that trigger safeguard measures that may be challenging, but the participatory mechanisms adopted are likely to ensure that local communities and indigenous rights are respected. Safeguards triggered by the project include: Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), Physical Cultural Resources (OP/BP 4.11), Indigenous Peoples (OP/BP 4.10), and Involuntary Resettlement (OP/BP 4.12). The extent of safeguard concerns implies that the project risk is moderate to high. There is a risk that some stakeholders will resist the creation of additional Protected Areas due to perceived potential economic losses, poor past experience with land tenure regularization, or resettlement. To mitigate these risks, consultations on indigenous peoples’ issues, resettlement, and a complete environmental assessment have been carried out. Satisfactory safeguard instruments, including the Environmental Management Framework (EMF), the Resettlement Framework (RF) and the Indigenous Peoples Planning Framework (IPPF), have been conducted and publicly disseminated. The project will continue to apply a highly participatory approach to the process of PA creation that emphasizes consensus and community participation in PA management.

41. Implementation capacity may continue to be variable and financial sustainability may not be achieved, but the project includes capacity building for the UCP and FUNBIO. The capacity of the project to disburse adequate funds in a timely manner represents a
moderate risk to the project. To further mitigate this risk the project will work to strengthen the UCP and FUNBIO’s management capacity through capacity building activities, close supervision, and improved management information systems to increase the overall efficacy and sustainability of managerial decisions.

VI. Appraisal Summary

A. Economic and Financial Analysis

42. The economic analysis of ARPA Phase 2 is based on incremental costs and compares a baseline scenario with the ARPA Phase 2 proposal. The baseline scenario is based on the progress of Phase 1: 24 million hectares of PAs created, half of which are in a stage of basic consolidation; 8 million hectares of PAs in an advanced stage of consolidation; 6 million hectares of pre-existing PAs not yet supported by ARPA with little support from the Governmental budget; and the FAP capitalized at the current level. The ARPA Phase 2 alternative is based on the description provided in this project document, considering not only the resources from the GEF but also the contribution of other donors (see Annex 9).

43. As a result of the incremental costs and baseline/project scenarios comparative analysis, it was found that the baseline scenario would generate limited short-term gains in terms of biodiversity conservation, and would not constitute a concerted effort to mainstream conservation actions and resources for PAs in the Amazon region. Without the project’s incentive, the rate of protected area creation and consolidation would reduce significantly, and the lack of a concerted effort would present difficulties to the design and implementation of tools for the long-term sustainability of PAs. While difficult to value, the incremental benefits identified are key to ensuring the sustainability of conservation efforts and tangible benefits over the long term. In financial terms, Soares-Filho et al. (2008) found that the creation of 13 Protected Areas in the Amazon under ARPA from 2003 to 2007 is associated with the offset of emissions equivalent to 430 million tons of carbon by 2050 as compared to the business-as-usual scenario. Assuming the value of US$ 5 per ton of carbon, these PAs will account for US$ 2.2 billion dollars of emissions reductions by 2050 or about US$ 54 million dollars per year. The ARPA Phase 1 total cost was of US$ 84.5 million, thus the IRR for this investment is 22%.

B. Technical

44. The creation and implementation of Protected Areas are two of the most effective ways to reduce deforestation. Although there is a debate on whether PAs really reduce deforestation or simply avert it to other areas, the strategic use of PAs integrated with other policies is effective in deforestation control. In addition, PAs are the best way to protect particular conservation targets, such as endemic and endangered species. The progress of Phase 1, with over 24 million hectares of new PAs, has not reduced the possibility for the

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13 For this analysis we opted for adopting a very conservative value due to the recent oscillations in the Carbon Credits Market.
additional expansion proposed, as the Map of Priority Areas for Biodiversity\textsuperscript{15} indicates the need for the creation of around 20 million hectares of strict protection and 40 million hectares of sustainable use PAs.

45. The latest findings in conservation biology and environmental science will be considered when designating newProtected Areas and updating the Map of Priority Areas for Biodiversity. The Scientific Committee will be composed of experts who will thoroughly review the latest scientific findings. Studies have found that seasonal patterns in ecosystems also impact deforestation\textsuperscript{16} (forest areas with longer dry seasons may be most vulnerable to deforestation), and though the size of Protected Areas was considered to be the main concern in the establishment of Protected Areas, new studies suggest that the ecological status of the surrounding landscape is also important.\textsuperscript{17} In addition, new findings show that sustainable use PAs can be as effective in controlling deforestation as strict protection PAs.\textsuperscript{18} A cost-benefit analysis can be useful in convincing national Government officials of the value of Protected Areas and especially of supporting involvement in carbon financing mechanisms.\textsuperscript{19}

46. Though the numbers of public Protected Areas and the area covered by them have increased at an impressive rate over the past ten years, they have yet to be delineated with precise geo-referencing and other investments for their consolidation. Completing this process for Protected Areas will assure greater protection of their integrity, on which regard the ARPA focus on staffing (funded by Government with incentive from the ARPA criteria) and consolidation of PAs should be highlighted. Except for ARPA, none of the Government-funded programs include long-term financing mechanisms for Protected Areas. Currently 42 PAs in the Amazon receive financial support from ARPA, corresponding to 33\% of the PAs and 63\% of the total area under protection.

C. Financial Management

47. A financial management assessment was carried out in accordance with Bank guidelines. The financial management risk associated with the Project has been assessed as “Low”. FUNBIO has sought innovative solutions to guarantee strong financial management arrangements in its projects. Some initiatives were implemented to further strengthen the institution’s accounting functions in the medium and long term, including the adoption of a robust accounting and FM system (RM/Cérebro). Nonetheless, lack of internal control/audit unit was found by the World Bank’s FM assessment to be an area for improvement, where

\textsuperscript{15}Brazil defined in 2004 and revised in 2007 its Priority Areas for the Conservation and Sustainable Use of Biodiversity, to guide conservation and development actions and policies. The current list is officially recognized through a legal document (MMA Administrative Ruling No. 9, of 03 January 2007), and the map is available at: .


\textsuperscript{18}IEG, Protected Area Effectiveness in Reducing Tropical Deforestation: a Global Analysis of the Impact of Protection Status, 2009.


some mistakes were found in ARPA Phase 1 and PROBIO 2. This should be mitigated by clear understanding of project design and respective financial management and disbursement rules, including assurance that trained and experienced staff provides training to decentralized subprojects during the life of the project and proper auditing arrangements are in place by negotiations, as well as regular World Bank supervision missions. With the implementation of these recommendations, FUNBIO’s financial management capacity meets Bank requirements.

D. Procurement

48. A full assessment of FUNBIO’s capacity to implement procurement under the Bank’s procurement guidelines has been carried out, and no major risks were identified, the risk has been assessed as “Low”. FUNBIO has implemented other Bank projects, having established familiarity with the procurement rules, including using bidding documents, requesting prior and post reviews, and preparing procurement plans. Because it is a private entity, its regulations allow enough flexibility to apply the Bank's Guidelines, so no special provisions are required. Due to the nature of the project, only a few selection processes might have higher complexity. The implementation risk was rated as low and residual procurement risks for the project were mitigated by selecting the complex bidding/selection process for prior review.

49. Some findings to be highlighted are: (i) FUNBIO uses a management system named Cérebro, which has a full procurement module. This system deals with procurement responsibilities and formalizes the decision making and an enhanced version (Cérebro 2) is currently under development; (ii) FUNBIO has a bidding and contracting manual, which was revised by the Bank; (iii) FUNBIO has an excellent filling system; (iv) the procurement unit is currently staffed with 8 experienced people. They are prepared to expand if needed; and (v) the POA is normally used as a procurement plan, but as it does not fulfill Bank's requirements, a standard Bank procurement plan has been prepared for the project. The Project Operational Manual includes the roles, responsibilities, procedures, and related instruments in a section dedicated to procurement. Annex 3 includes a summary of the methods, thresholds, prior review requirements, and bidding documents to be used for project implementation.

E. Social

50. Social safeguard operational policies triggered by the project are Indigenous Peoples (OP/BP 4.10), and Involuntary Resettlement (OP/BP 4.12). Social issues to be considered in project implementation include poverty and the unique socio-economic issues that inhabitants in the Amazon region face, land tenure issues, ensuring equal participation in terms of gender and ethnicity in participatory natural resource management, indigenous people’s rights, and involuntary resettlement, especially potential nonphysical displacement. The Indigenous Peoples Planning Framework (IPPF) was disclosed in country on January 7, 2011 and Bank’s web site on March 21, 2011 (See Annex 3 for a more detailed description).
51. Consultations with indigenous peoples’ representatives were carried out on the project design and the draft IPPF prior to appraisal. Indigenous responses on the project and the IPPF were positive. The overall objective of the site-specific Indigenous Peoples Action Plans (IPAPs) to be developed and supported under the project is to foster collaborative management arrangements between neighboring indigenous peoples and the protected area, and to mitigate any potential natural resource use restrictions for indigenous peoples inside the protected area as well as to ensure indigenous access to sacred sites. See Annex 3 for a summary of the IPPF which has been already publicly disseminated. One of the lessons from ARPA’s Phase 1 was that the project should focus on indigenous communities neighboring PAs and assess the degree to which the potential natural resource use restrictions in the PA exist and could be mitigated and how indigenous communities could become further involved in co-management arrangements. Wider indigenous peoples’ issues are the focus of other Government actions, such as the new mission of FUNAI for protection and promotion of indigenous rights, the successful Indigenous Lands Project - PPTAL (concluded), which demarcated over 45 million hectares of indigenous lands in the Amazon, and the Indigenous Peoples Demonstration Projects (PDPI) - both subprojects of the PPG-7 (Brazilian Rainforest Conservation Pilot Program) - and other Governmental and non-Governmental programs.

52. It is not expected that physical involuntary resettlement will occur. Nonetheless, a Resettlement Framework (RF) was developed. Overall, the project is expected to contribute to positive social outcomes relating, for example, to increased well-being and livelihood security for populations living in sustainable use Protected Areas, as well as improved natural resource and environmental conditions and potential economic benefits to local populations from improved tourism, local involvement in PA management as well as additional or improved opportunities from park management and nature-related tourism, among others. However, some livelihood activities in sustainable use PAs could be adversely impacted by restrictions, which is also true for strict protection PAs. These potential adverse economic impacts will be mitigated by the project’s RF. The Resettlement Framework (RF) have been consulted and publicly disclosed in country on February 28, 2011 and Bank’s website on March, 21, 2011. (see Annex 3 for further details).

F. Environment

53. It is expected that the ARPA Program will have overall positive impact on the environment. Creating a significant land area of Protected Areas will help conserve tropical forests. Brazil has the most advanced system to monitor forest cover. The system encompasses the entire Brazilian Amazon with yearly monitoring (PRODES) and the regions with higher deforestation probability are monitored in “real time” (DETER) by the Space Research National Institute (INPE). The PAs also receive a detailed focus from INPE.

54. Despite its support to sustainable use PAs, the project does not generally promote new areas for sustainable use but, instead, recognizes traditionally use areas, where human impact will be reduced by community-based management with Government supervision. The two sustainable use categories allowed under the project (extractive reserves and sustainable development reserves) are, by definition, areas previously used by traditional communities with reduced environmental impact. Usually, before the creation of the PAs supported by
the project, these areas are threatened by encroachment and outsiders that make unsustainable and predatory use of the forest. Therefore, ARPA’s sustainable use PAs are likely to reduce environmental impact. Localized low impacts may result from activities such as establishing administrative structures and access/vigilance trails in PAs. The following environmental safeguards are triggered: Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), and Physical Cultural Heritage (OP/BP 4.11). Annex 3 provides detailed description of safeguards.

55. The Environmental Management Framework (EMF) for Phase 2 has been completed. Although these steps were taken into account during preparation for the first stage of ARPA, to ensure that potential new environmental impacts are adequately addressed, a new environmental assessment has been produced as part of Phase 2. The Environmental Management Framework (EMF) was disclosed in country on March 18, 2011 and Bank’s web site on March 21, 2011.
Annex 1: Results Framework and Monitoring
BRAZIL: Amazon Region Protected Areas Project Phase 2
Results Framework

**Project Development Objective (PDO):** The Project Development Objective is to expand and consolidate the system of Protected Areas in the Amazon Region and to strengthen the mechanisms for its financial sustainability.

<table>
<thead>
<tr>
<th>PDO Level Results Indicators*</th>
<th>Core</th>
<th>Unit of Measure</th>
<th>Baseline</th>
<th>Cumulative Target Values**</th>
<th>Frequency</th>
<th>Data Source/Methodology</th>
<th>Responsible for Data Collection</th>
<th>Description (indicator definition etc.)</th>
</tr>
</thead>
</table>
| **Indicator One:** New Protected Areas created in Amazon.  
Target: 13.5 million ha. | ☐    | Million hectares | 24 million hectares (created in Phase 1) | 8 | 13.5 | Annually | PA designation decrees and laws | MMA | Hectares of new Protected Areas according to their legal instruments |
| **Indicator Two:** Existing Protected Areas consolidated 20 .  
Target: 32 million ha. | ☐    | Million hectares | 8.5 million hectares (consolidated in Phase 1) | 20 | 32 | Annually | FAUC and monitoring visits to PAs | MMA | Hectares of Protected Areas consolidated, as per established indicators. |
| **Indicator Three:** ARPA endowment fund (FAP) increased by 150% above its current level of funds  
Target: US$ 42.8 million. | ☐    | US$ Million | US$ 27.2 million (Capitalized in Phase 1) | 20 | 42.8 | Annually | FAP reporting | FUNBIO | Capitalization in trust fund (US$) |

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20 The ARPA program Conservation and Investment Strategy (ECI) specifies two stages of consolidation: the first stage of consolidation is intended for Protected Areas to achieve a basic level of infrastructure and management; the second stage of consolidation is intended for areas which completed stage 1 and are progressing to achieve the eligibility criteria to receive funding from the trust fund (FAP). See Annex 2 for a detailed description of consolidation stages.
### INTERMEDIATE RESULTS

<table>
<thead>
<tr>
<th>Intermediate Result indicator</th>
<th>Core</th>
<th>Unit of Measure</th>
<th>Baseline</th>
<th>Cumulative Target Values**</th>
<th>Frequency</th>
<th>Data Source/Methodology</th>
<th>Responsib for Data Collection</th>
<th>Description (indicator definition etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate Result (Component One): Component 1: 13.5 million hectares of new Protected Areas created in the Brazilian Amazon region.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate Result indicator One: Area studied for the creation of PAs</td>
<td></td>
<td>Area (ha) with potential for the creation of PAs with completed studies.</td>
<td>5 million ha</td>
<td>20 million ha</td>
<td>30 million ha</td>
<td>Annually</td>
<td>FAUC/CNUC</td>
<td>MMA</td>
</tr>
<tr>
<td>Intermediate Result Indicator Two: Map of Priority Areas updated</td>
<td></td>
<td>Date of Map Update</td>
<td>2007</td>
<td>2012</td>
<td>2015</td>
<td>EOP</td>
<td>Ministerial decree</td>
<td>MMA</td>
</tr>
<tr>
<td>Intermediate Result (Component Two): 32 million hectares of existing Protected Areas consolidated.</td>
<td></td>
<td>Number of hectares of PAs consolidated in each consolidation stage</td>
<td>7 million ha stage 1 and 1.5 million ha stage 2 (consolidated in Phase 1)</td>
<td>4 mi ha st. 1 &amp; 3 mi ha st.2</td>
<td>10 mi ha st.1 &amp; 6 mi ha st.2</td>
<td>23 mi ha st.1 &amp; 9 mi ha st.2</td>
<td>Annually</td>
<td>Management plans, minutes from mgmt council meetings, maps, audits</td>
</tr>
<tr>
<td>Intermediate Result indicator Two: At least three PA management models tested and described in case studies.</td>
<td></td>
<td>Number of PA management models tested.</td>
<td>0</td>
<td>ToRs issued</td>
<td>At least 3 models selected &amp; impl. initiated</td>
<td>At least 3 models tested; case studies prepared</td>
<td>Annually</td>
<td>Terms of reference, project progress reports, case studies.</td>
</tr>
<tr>
<td>Intermediate Result indicator Three: At least 20 PA Action Plans</td>
<td></td>
<td>Number of action plans</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>20</td>
<td>Annually</td>
</tr>
</tbody>
</table>

**Baseline**

- **YR 1**: Year 1
- **YR 2**: Year 2
- **YR 3**: Year 3
- **YR 4**: Year 4

**Intermediate Result (Component One):**

Component 1: 13.5 million hectares of new Protected Areas created in the Brazilian Amazon region.

**Intermediate Result Indicator One:**

Area (ha) with potential for the creation of PAs with completed studies.

**Baseline:**

- **YR 1**: 5 million ha
- **YR 2**: 20 million ha
- **YR 3**: 30 million ha
- **YR 4**: 80 million ha

**Frequency:** Annually

**Data Source/Methodology:** FAUC/CNUC

**Responsib for Data Collection:** MMA

**Description (indicator definition etc.):** Sum of the areas of the studies for the creation of PAs completed.

**Intermediate Result Indicator Two:**

Map of Priority Areas updated

**Date of Map Update:**

- **2007**: 2007
- **2012**: 2012
- **2015**: 2015

**EOP:**

**Ministerial decree:**

**MMA:**

**Description (indicator definition etc.):** Date of update as of the date of the administrative ruling (portaria) updating the Map.

**Intermediate Result (Component Two):**

32 million hectares of existing Protected Areas consolidated.

**Intermediate Result Indicator One:**

Consolidation of 23 million hectares in consolidation stage 1 and 9 million hectares in stage 2.

**Number of hectares of PAs consolidated in each consolidation stage:**

- **YR 1**: 7 million ha stage 1 and 1.5 million ha stage 2
- **YR 2**: 4 mi ha st. 1 & 3 mi ha st.2
- **YR 3**: 10 mi ha st.1 & 6 mi ha st.2
- **YR 4**: 23 mi ha st.1 & 9 mi ha st.2

**Frequency:** Annually

**Data Source/Methodology:** Management plans, minutes from mgmt council meetings, maps, audits

**Responsib for Data Collection:** FUNBIO, MMA, ICMBio and state agencies

**Description (indicator definition etc.):** Number and quality of management plans; minimum infrastructure and equipment in place; and operation of mgmt councils.

**Intermediate Result Indicator Two:**

At least three PA management models tested and described in case studies.

**Number of PA management models tested.**

- **YR 1**: 0
- **YR 2**: ToRs issued
- **YR 3**: At least 3 models selected & impl. initiated
- **YR 4**: At least 3 models tested; case studies prepared

**Frequency:** Annually

**Data Source/Methodology:** Terms of reference, project progress reports, case studies.

**Responsib for Data Collection:** MMA, ICMBio and state agencies

**Description (indicator definition etc.):** Terms of reference for management models, case studies describing the models tested under the project.

**Intermediate Result Indicator Three:**

At least 20 PA Action Plans

**Number of action plans:**

- **YR 1**: 0
- **YR 2**: 0
- **YR 3**: 5
- **YR 4**: 10
- **YR 5**: 20

**Frequency:** Annually

**Data Source/Methodology:** Terms of reference, project progress

**Responsib for Data Collection:** MMA, ICMBio and state agencies

**Description (indicator definition etc.):** Number of action plans
implemented with communities and indigenous peoples in accordance with IPPF and RF.

<table>
<thead>
<tr>
<th>Intermediate Result indicator Four:</th>
<th>Activities included in the Capacity building plan</th>
<th>Plan prepared</th>
<th>Plan under impl.</th>
<th>Plan under impl.</th>
<th>Plan implemented &amp; evaluated</th>
<th>Annually</th>
<th>Plan document, list of participants in training events, evaluation of plan implementation.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0</td>
<td></td>
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<td></td>
<td>MMA, ICMBio and state agencies</td>
</tr>
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<td></td>
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<td></td>
<td>Number and themes of capacity building activities in plan, hours/participant of training per theme, evaluation of training provided.</td>
</tr>
</tbody>
</table>

**Intermediate Result (Component Three):** ARPA endowment fund (FAP) increased by 150% above current level of funds

<table>
<thead>
<tr>
<th>Intermediate Result indicator One: FAP operational and making annual disbursements to selected PAs.</th>
<th>Total amount (US$) disbursed per year.</th>
<th>0</th>
<th>100% of the approved budget</th>
<th>100% of the approved budget</th>
<th>100% of the approved budget</th>
<th>Annually</th>
<th>Audit reports; annual procurement plans.</th>
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<tbody>
<tr>
<td></td>
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<td></td>
<td>FUNBIO, FAP, MMA</td>
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<td></td>
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<td></td>
<td></td>
<td>FAP bylaws and operations manual, annual planning documents for resource use and fundraising.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intermediate Result indicator Two: 6 strategic studies and 4 PA financial sustainability plans implemented.</th>
<th>Number of studies developed and financial plans implemented.</th>
<th>0</th>
<th>Working group formed and operating</th>
<th>2 studies and 1 plan developed; 4 studies and 3 plans implemented.</th>
<th>6 econ studies, 4 PA plans implemented and evaluated</th>
<th>Annually</th>
<th>Inventory of studies, audit reports</th>
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<tbody>
<tr>
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<td></td>
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<td></td>
<td>FUNBIO, MMA</td>
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<td></td>
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<td></td>
<td></td>
<td>Quality and relevance of studies produced, effectiveness of tested income generating mechanisms.</td>
</tr>
</tbody>
</table>

**Intermediate Result (Component four):** Management, coordination, and monitoring of Protected Areas improved

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<td>MMA</td>
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<td></td>
<td></td>
<td>ECI and FAUC being used to guide operations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intermediate Result indicator Two: Project management efficiency</th>
<th>Survey results and reports.</th>
<th>NA</th>
<th>Annually</th>
<th>Management efficiency reports and</th>
<th>FUNBIO</th>
<th>Survey results used to improve management</th>
</tr>
</thead>
</table>
improved with real time tracking system (Cerebro II) implemented.

### Intermediate Result indicator Three: Program Communication Strategy developed and at least 80% of planned activities executed.

|---|---|---|---|---|---|---|---|---|---|---|---|

### Intermediate Result indicator Four: Environment and Social Monitoring Framework developed and being updated on an annual basis including in situ information for PAs in Stage 2 of consolidation.

Annex 2: Detailed Project Description

Background

56. **Constituting some of the largest stocks of rainforest in the world, the Amazon provides essential global environmental benefits**, specifically in terms of carbon sequestration, climate change mitigation, and preserving one of the world’s most biodiverse ecosystems. Recent studies have found that averting deforestation can make significant contributions to climate change mitigation through carbon sequestration.\(^{21}\) ARPA Phase 1 contributed not only to the expansion of the total area under protection in High Conservation Value areas (HCV)\(^{22}\) in the Amazon, but also to reducing deforestation in these areas. For example, a study estimated that 13 Protected Areas created under ARPA from 2003 to 2007 have contributed to offsetting emissions equivalent to 430 million tons of carbon by 2050, as compared to the business as usual scenario.\(^{23}\) International concern for deforestation in the Brazilian Amazon reflects the fact that its environmental benefits - both from using natural resources and the existence value of the biome’s extensive flora and fauna - are truly valued on a global scale.

57. In Brazil, the GEF-supported Amazon Region Protected Areas Program (ARPA), the world’s largest initiative to implement Protected Areas (PAs), succeeded in creating 24 million hectares of new Protected Areas, and contributed to the consolidation of 8.5 million hectares of forest in Phase 1.\(^{24}\) In addition, the program succeeded in establishing the *Fundo de Áreas Protegidas* (FAP), an endowment fund to ensure long-term financial sustainability for the established Protected Areas (PAs). The program also created a solid foundation for effective financial management and monitoring.

58. **Legal context for project implementation.** In 2000, Brazil passed a law creating the National System of Protected Areas (SNUC, Law No. 9.985, signed June 18, 2000 and regulated by decree No. 4.340, of August 22, 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 system defines the responsibilities and categories of Protected Areas, establishes rules for managing Protected Areas, and provides mechanisms for property ownership.\(^{25}\) To date, the system has approved five categories of “strict protection” areas

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\(^{23}\) Soares-Filho, B.S, et al. 2008. “Reducing carbon emissions from deforestation: the role of ARPA’s Protected Areas in the Brazilian Amazon” UFMG, IPAM, WWF.

\(^{24}\) Protected area consolidation is the process of supporting long-term conservation in specific project areas. This requires obtaining sufficient financial and human resources, adequate infrastructure, supportive local constituencies, and capacity for strategic planning, political support, and sufficient ecological information. The ARPA program Conservation and Investment Strategy (ECI) specifies two stages of consolidation. See Annex 2 for a detailed description of consolidation stages.

(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). The areas protected under ARPA Phase 2 will be zoned for various uses, including a “strict protection” use. This project also contributes to the principles of the National Policy on Biodiversity, following the general guidelines established in Decree no. 4,339, and falls within the 2010 National Goals for Biodiversity, established in Resolution no. 3 in December 2006. The second phase of ARPA will also serve to strengthen the mandate and the capacity of SNUC, since in practice implementation and legal enforcement are still in their initial phases.

59. In ARPA Phase 2, the GEF will provide US$15.89 million dollars, primarily for the consolidation of Protected Areas. Along with funds from other donors, US$ 85.9 million will be dedicated to achieving the project’s objectives. ARPA Phase 1 (was a result of a partnership between the Brazilian Government, NGOs, donors, and local stakeholders, using an innovative and successful implementation arrangement. The preparation of ARPA Phase 2 has been based on the analysis of technical documents and evaluations of ARPA Phase 1 and broad consultations with civil society, donors, and stakeholders.  

Project objectives and Components

60. The Project Development Objective is to expand and consolidate the system of Protected Areas in the Amazon Region, and to strengthen the mechanisms for its financial sustainability.

61. The specific objectives of the project are: (i) to create 13.5 million hectares of additional new Protected Areas in the Amazon; (ii) to consolidate 32 million hectares of Protected Areas; and (iii) to further capitalize the ARPA Endowment Fund (FAP).

Project Components

62. COMPONENT 1 - Creation of new Protected Areas (Total US$ 3.50 million, GEF US$ 1.00 million). The first task under Component 1 is to identify the 13.5 million hectares that are to be designated as PAs. To this target achievement will be considered PAs created after 2008 that comply with the following: (i) environmental and socio-economical studies concluded and public consultations carried out (for pre-existing areas created after 2008); (ii) inexistence of overlaps with indigenous or quilombolas lands; and (iii) no physical resettlement of local population required. The federal and state Governments will participate in identifying Protected Areas, along with the relevant environmental agencies in accordance with the Conservation and Investment Strategy elaborated by MMA.

63. The selection of PAs will be based on the Map of Priority Areas for the Conservation, Sustainable Use and Benefit-Sharing of the Brazilian Biodiversity, which was updated from

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2005 to 2007 as part of ARPA Phase 1. According to the Ministry of Environment, the selection of Protected Areas should take into account the most recent scientific information, with special consideration for the location of indigenous peoples, intensity of threats of deforestation and land conversion, habitat connectivity, and potential to offset climate change and generate revenues through the carbon market or payment for ecosystem services mechanisms. At each level, federal, state, and local officials will rely on the Protected Area creation guidebook developed as part of ARPA Phase 1 as guidance for selecting and designating Protected Areas. Furthermore, two new studies on conservation planning methods will be carried out to supplement the *Estratégia de Conservação e Investimento* (ECI, Conservation and Investment Strategy) developed in Phase 1.

64. The procedures for establishing Protected Areas are determined by the National System of Protected Areas (SNUC), and are detailed in Brazilian federal law No. 9.985, June 18, 2000, and Decree no 4.340, August 22, 2002. Public consultation will be carried out for each new Protected Area to be created, with studies on the environment, land rights, and socioeconomic data informing the final decisions about the location of new Protected Areas. Additionally, the implementing agencies will undertake public consultations and circulation of the draft decrees for Protected Area creation.

65. After Protected Areas have been identified, the following activities should be developed: (i) preparation of an environmental and socio-economic evaluation, and public consultations, including consultations with indigenous peoples; (ii) formal designation of Protected Areas as specified in the SNUC legislation followed by the execution of a decree of creation of the PA; and (iii) analysis of environmental, socioeconomic and land tenure issues in the selected priority areas. This later exercise will indicate the unclaimed public lands that minimize the necessity of land acquisition with Governmental funds and resettlement by the project. Selected priority areas will be identified based on the existing official Map of Priority Areas. This approach was successful in Phase 1 and will be replicated in Phase 2.

66. This component will fund activities such as consultancies for the preparation of land tenure assessments, environmental and socio-economic evaluations, public consultations, and workshops to update the Map of Priority Areas for the Amazon region, among other activities.

67. **COMPONENT 2 - Consolidation of Protected Areas (Total US$ 67.00 million, GEF US$ 11.00 million)**. The consolidation process aims to provide all Protected Areas with the necessary material, financial, and human resources to ensure that designated areas are respected and land use restrictions are enforced. This implies procuring and delivering essential supplies and allocating Governmental staff to work in the PAs, as well as building capacity and providing training for staff working in Protected Areas. This component will consolidate 32 million hectares of ARPA supported PAs (new and pre-existing) according to the consolidation criteria described below, including the preparation of a capacity building strategy, training programs and knowledge sharing activities. This component will also test integrated PA management models and community integration activities. This component will fund activities such as the acquisition of goods, services and works; training workshops; and consultancies.
68. **Subcomponent 2.1 - Consolidation of PAs:** This subcomponent aims to provide sufficient financial human and financial resources, adequate infrastructure, supportive local constituencies, technical capacity for strategic planning, political support, and sufficient ecological information for the long-term conservation of PAs. The Conservation and Investment Strategy specifies two stages of consolidation, the indicators for which are provided below. The Annual Operation Plans for each PA will specify activities that will be completed during consolidation and subsequently. These plans will be reviewed and agreed upon by both the Government at the relevant levels and by the overseeing bodies within MMA. Funding for activities during consolidation stages 1 and 2 will be allocated as prescribed in the ECI (Conservation and Investment Strategy). It is expected that under this subcomponent 23 million hectares of PAs will complete consolidation stage 1 and 9 million hectares of PAs will complete consolidation stage 2.

**Consolidation stage 1**

69. The first stage of consolidation is intended for all PAs supported by ARPA, particularly the new Protected Areas created under the project. PAs consolidated in stage 1 will receive support from ARPA for a maximum period of two years. Financial support will be determined by a budget specified in the ECI. The following indicators will guide actions in the first stage of consolidation.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Verification mechanism</th>
</tr>
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<tbody>
<tr>
<td>Technical team of at least 2 employees working in the Protected Area</td>
<td>National Registry of Protected Areas</td>
</tr>
<tr>
<td>Managing council officially created</td>
<td>Form completed in the Protected Areas Evaluation system</td>
</tr>
<tr>
<td>Management plan developed and discussed by the managing council</td>
<td>Administrative Ruling for the creation of a managing council under the managerial organization</td>
</tr>
<tr>
<td>Identifying the main points of access to the Protected Area</td>
<td>Form completed in the Protected Areas Evaluation system</td>
</tr>
<tr>
<td>Protection plan developed</td>
<td>Form completed in the Protected Areas Evaluation system</td>
</tr>
<tr>
<td>Basic equipment provided for the PA operation</td>
<td>Technical inputs provided by the managerial organization</td>
</tr>
</tbody>
</table>
| Update the information in the National Registry of Protected Areas related to basic information, access to Protected Areas, human resources and infrastructure | Form completed in the Protected Areas Evaluation system  
National Registry of Protected Areas                                     |
| Government budget allocation disbursed                                   | Annual budget report approved by the ARPA program committee                           |

27 Form completed in the Protected Areas Evaluation system - FAUC/ ARPA

**Consolidation stage 2**

70. Once the Protected Areas have undergone the first stage of consolidation, they will be identified as capable for progressing to a second stage, in which the Protected Areas will continue to improve management and monitoring in line with the plans and budgets.
established in stage 1. Given the limited resources of the ARPA program not all PAs created or supported under the project will necessarily complete the second stage of consolidation. The ECI uses threat and biological importance criteria to select among eligible PAs to progress into consolidation stage 2 with project support. The second stage will also be limited to two years, during which each Protected Area should achieve the following objectives:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Verification mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical team with a minimum of 5 staff members, working in the PA</td>
<td>National Registry of Protected Areas</td>
</tr>
<tr>
<td>Advisory councils functioning and meeting regularly</td>
<td>Form completed in the Protected Areas Evaluation system</td>
</tr>
<tr>
<td>Identification of strategic issues for the Protected Area, as identified in the Management Plan</td>
<td>Form completed in the Protected Areas Evaluation system</td>
</tr>
<tr>
<td>Demarcation points and priority corridors identified, as in the Management Plan</td>
<td>Form completed in the Protected Areas Evaluation system</td>
</tr>
<tr>
<td>Land tenure survey carried out</td>
<td>Form completed in the Protected Areas Evaluation system</td>
</tr>
<tr>
<td>Signing of the Terms of Agreement with indigenous and local peoples residing in and around Protected Areas. Terms of concessions for land use rights agreements for populations in sustainable use Protected Areas.</td>
<td>Terms of agreement or concessions for land use rights</td>
</tr>
<tr>
<td>Research projects implemented in Protected Areas in accordance with the management plan</td>
<td>Form completed in the Protected Areas Evaluation system</td>
</tr>
<tr>
<td>Monitoring of at least one biodiversity or social-environmental indicator in each Protected Area</td>
<td>Form completed in the Protected Areas Evaluation system</td>
</tr>
<tr>
<td>Procurement of necessary equipment for each Protected Area</td>
<td>Form completed in the Protected Areas Evaluation system, National Registry of Protected Areas</td>
</tr>
<tr>
<td>Basic facilities for the operation of each Protected Area established in accordance with the management plan</td>
<td>Form completed in the Protected Areas Evaluation system</td>
</tr>
<tr>
<td>National Registry of Protected Areas fully updated</td>
<td>National Registry of Protected Areas</td>
</tr>
<tr>
<td>Annual operating plan drafted based on the Management Plan and discussed within each local Advisory Council</td>
<td>Management plans for Protected Areas, Minutes from board meetings from Advisory councils</td>
</tr>
<tr>
<td>Yearly budgets allocated</td>
<td>Annual budget report from the managerial organization, approved by the ARPA program committee</td>
</tr>
</tbody>
</table>

71. Protected Areas must meet all the benchmarks for consolidation Stage 1 before moving on to consolidation Stage 2. Once PAs have met the requirements for the second stage of consolidation, the PAs will begin a transition to becoming independent of the initial consolidation support, in accordance with the Annual Operating Plans of each PA and becomes eligible to receive support from FAP. Support for the integrated management of Protected Areas will continue in consolidated PAs. Strategic planning of mosaics and
coordination between management organizations in different Protected Areas will be a priority.

72. **Subcomponent 2.2 - Development of PA Management Models:** This subcomponent will focus on fostering the implementation of innovative PA management models, including integrated and participatory management - such as mosaics creation - aiming at a more efficient use of the resources for biodiversity protection and territorial management. The project will support the preparation and implementation of three PA management models. By the end of the project, supported experiences will be used as case studies for the evaluation of the integrated management models effectiveness.

73. **Subcomponent 2.3 – Community Integration:** This subcomponent will promote a better coordination and institutional enhancement of the local communities and organizations, fostering their participation in PA management and access to public and private policies, programs and financing for the sustainable use of resources inside the PAs. In addition to the communities living inside or near PAs (including resettled communities), indigenous populations neighboring PAs can also be supported. Support from this subcomponent will be provided through the Protected Areas, which will be selected by the relevant state or federal agency among ARPA supported PAs under their jurisdiction. Thematic areas eligible for financing for site-specific Indigenous Peoples or Local Communities activities (Action Plans – APs) include: (i) training for PA management councils on participatory PA management; (ii) capacity building of community organizations on access to public and private resources; (iii) promoting the use of more sustainable technologies in relation to the use of natural resources, according to SNUC rules and the PA management plan; (iv) training activities pertaining to environmental conservation and sustainable natural resource use; (v) joint protection activities (including ensuring access to sacred sites); and (vi) promotion of experience exchange, among others. Approved activities for specific PAs must comply with the PA management plan, will be included in the PA annual operating plan and are to be implemented by the PA staff in conjunction with local communities. The target is to support 20 PA Action Plans, including APs for Indigenous Peoples to foster collaborative management arrangements between neighboring indigenous peoples and the Protected Area, as well as access to resources or sacred sites. See Annex 3 for summaries of the Indigenous Peoples Planning Framework (IPPF) and Resettlement Framework (RF).

74. **Subcomponent 2.4 – Capacity building for PA management:** This component will support capacity building and training activities to improve PA staff and partners’ managerial competencies. The activities to be carried out will be coordinated by the UCP with the support of a technical committee designated for the preparation of a Strategic Capacity Building Plan. All capacity building activities will be implemented according to this Plan. Priority thematic areas to be addressed include: management plans, management councils, territorial consolidation, integrated management, knowledge management, public policies, fund raising strategies and conflicts mediation, among other relevant themes.

75. **COMPONENT 3 - Long-term sustainability of Protected Areas (Total US$ 1.90 million, GEF US$ 0.40 million).** This component intends to generate additional revenues for FAP, with a goal of increasing the endowment fund up to US$ 70 million (an increase of 150%) by
the end of ARPA Phase 2 and support the development of innovative alternatives for PAs financing. This component will also develop methodologies for assessing PA costs and generate knowledge on the economic impact and benefits of PAs, among other themes related to conservation economy. In addition to the endowment, other options will be explored under this component to insure the necessary financial sustainability of the PA system. This will include advancing the search for and testing of appropriate revenue-generating mechanisms for PA sustainability and income-generating activities for communities in buffer zone areas to complement existing Government mechanisms and fully meet all PA management needs. As part of this work, studies on potential returns of income generating activities will be carried out, and financial sustainability plans will be generated, taking into account different costs for a range of Protected Areas. Under this component, GEF resources will support studies for potential revenue generating mechanisms for PAs focusing on climate change related mechanisms (REDD+) and support to FUNBIO in the development of fundraising strategies.

76. **Subcomponent 3.1 – Protected Areas Fund (FAP):** Resource mobilization for FAP will be the main activity under this subcomponent. It will also support institutional capacity building for the (i) development of effective and transparent mechanisms for the disbursement of FAP resources to ensure the proper post-consolidation management of Protected Areas, and (ii) development of a long term sustainability plan for projecting FAP’s situation after the financing of the ARPA program comes to a closure. The implementing agencies will agree on a strategy to ensure that FAP becomes a fully developed institution, either as a self-standing fund or as part of a Government organization. FUNBIO is responsible for managing FAP in accordance with the FAP Operational Manual prepared for ARPA Phase 2.

77. The subcomponent will also support improvements in: (i) the procurement and disbursement of FAP funds; and (ii) the Cérebro budgeting tool used in Phase 1. See Annex 7 for a more detailed description of FAP.

78. **Subcomponent 3.2 – Economic Sustainability of PAs:** This component will support studies comparing other successful cases of trust fund management, including investigating the best possible management structure and exploring other funding options. This will include advancing the search for and testing of appropriate revenue-generating mechanisms for PA sustainability. Fundraising through these mechanisms should complement existing Government mechanisms and fully meet all Protected Areas management needs. As part of this work, studies on potential returns of income generating activities will be conducted, and financial sustainability plans will be generated, taking into account different costs for the different types of Protected Areas, as well as the impact of PAs in local economies. Information and experiences generated under this component will be used to develop models for the economic sustainability of PAs and PA systems.

79. This subcomponent will be implemented by FUNBIO and technical coordination will be jointly executed by FUNBIO, MMA and ICMBio. A Technical Chamber will be created for this subcomponent with the participation of these three agencies to streamline action coordination. State agencies and other partners may eventually be invited to participate in the activities of the Technical Chamber as advisors.
80. **COMPONENT 4 - Project coordination, monitoring, management and communication (Total US$ 13.50 million, GEF US$ 3.49 million).** Component 4 will involve cross-cutting activities related to all the other components designed to strengthen coordination, management and monitoring, as well as project communication. This component will also support the strengthening and coordination of the ARPA program advisory board (namely the Technical Forum, Scientific Advisory Panel, and Project Commissions). During Phase 1, MMA and FUNBIO developed several innovative coordination and management systems such as: (i) the *Contas Vinculadas* that allow for more autonomy of PA administrators to spend small amounts of their budgets; (ii) the Cérebro system used by FUNBIO and PA administrators to plan and monitor PA budgets; (iii) the Conservation and Investment Strategy, which is the project’s budget planning framework; and (iv) ARPA’s Integrated System of Coordination and Management (SiSARPA) is an IT tool that coordinates the Cérebro system with the National Registry of Protected Areas, facilitating communication among project participants at all levels. These innovations will be maintained and improved during Phase 2.

81. **Subcomponent 4.1 – Project coordination:** The main objectives of this component are to improve the project’s efficiency and efficacy through the establishment of a satisfactory management system and the maintenance of the project’s participatory instances. To achieve its objectives, this component will: (i) define management arrangements and ways for strengthening dialogue between all involved parties; (ii) strengthen and coordinate the project’s advisory board (namely the Technical Forum, Scientific Advisory Panel, and Program Committee); and (iii) the UCP is also responsible to supervise the project’s activity implementation and financial execution based on the monitoring reports provided by FUNBIO, through direct verification of information in the Cérebro system and field visits, and to report to the executive instances.

82. The UCP is also responsible for the ECI update with early target and propose conceptual revisions when necessary. The ECI will spell out procurement and financial management decision-making structures. Additionally, the UCP will periodically update the monitoring tool FAUC.

83. **Subcomponent 4.2 – ARPA’s financial and logistics management:** This subcomponent will be managed by FUNBIO and aims at ensuring the efficient management of the project’s financial resources. To this end, the subcomponent will support: (i) the satisfactory operation of project’s procurement activities; (ii) satisfactory operation of the project’s financial management; and (iii) the development and improvement of the innovative management systems used in ARPA Phase 1, such as (a) the *Contas Vinculadas* that allow for more autonomy of PA administrators to spend small amounts of their budgets; and (b) the *Cérebro* system used by FUNBIO and PA administrators to plan and monitor PA budgets.

84. **Subcomponent 4.3 – Communication and outreach:** The main objective of this subcomponent is the development of a communication strategy to improve ARPA’s internal and external communication as a way to improve its management, the integration among agents and partners and the dissemination of lessons learned. Specific objectives of the
subcomponent are the: (i) development and implementation of the Program Communication Strategy; (ii) improvement and maintenance of the Program’s website; (iii) publication of at least one ARPA Magazine every two years and one ARPA Handbook per year; and (iv) preparation and dissemination of complementary informative material. The communication area will work under the UCP coordination.

85. **Subcomponent 4.4 – Project Effectiveness Monitoring**: Phase 1 M&E system for the ARPA program functioned well and few improvements are necessary for Phase 2, mostly regarding biodiversity monitoring. The activities under this subcomponent include the monitoring of PAs management effectiveness and the environmental monitoring.

86. Protected Area management will be periodically monitored through the Management Effectiveness Evaluation Tool (FAUC) that enable the follow up of the project’s achievements vis à vis its targets and is very useful to guide the efforts for PAs consolidation. Annual field visits will be conducted to validate the progress reported through FAUC. Although the FAUC was developed based on the GEF Tracking Tool (TT) and provides similar or even additional data, the TT will be adopted by the project for reporting purposes to the GEF. This tool will track progress in the PAs as compared to the existing FAUC baseline for 64 PAs.

87. As ARPA resources are limited, a comprehensive environmental and biodiversity monitoring program for all project supported PAs is beyond the scope and timeline of this project. Vegetation cover monitoring will continue under Phase 2 for all PAs as a proxy for biodiversity monitoring. PAs that are being consolidated in stage 2 will conduct local (PA level) monitoring, selecting either biodiversity or socio-environmental indicators. These latter would include socio-economic and cultural indicators and the target species used by the communities. The Environmental Monitoring will be executed by the PAs’ management units and will be coordinated by the MMA Protected Areas Department. A working group including MMA, ICMBio and representatives from other related environmental agencies will be nominated to prepare a specific manual to provide guidelines for the environmental monitoring operational activities.
Annex 3: Implementation Arrangements

I. Organizational structure and Management Arrangements

88. The implementation arrangements for ARPA Phase 2 will remain primarily the same as during the first Phase. The project will continue to be executed by the Ministry of Environment (MMA), the Brazilian Biodiversity Fund (FUNBIO), the Chico Mendes Institute for Biodiversity Conservation (ICMBio), and state agencies (for specific Protected Areas under their jurisdiction). In ARPA Phase 2, the Conflict Mitigation Unit will be strengthened and further institutionalized within ICMBio to better address claims and issues arising in and around the Protected Areas. The agency formerly known as IBAMA in the first Phase of ARPA is now ICMBio.

89. Effectiveness Conditions: The following are conditions of effectiveness for the project:

   a. The execution and delivery of the Grant Agreement on behalf of Funbio, duly authorized or ratified by all necessary Governmental action; and

   b. The MMA Implementation Agreement and the ICMBio Implementation Agreement have been duly amended to enable MMA and ICMBio, respectively, to carry out the parts of the Project under their respective jurisdictions.

90. Financial mechanisms - A grant agreement between the World Bank and FUNBIO will be signed to carry out the implementation of ARPA Phase 2. FUNBIO was selected by the Brazilian Government to manage the grant resources, and its 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) maintain the Protected Areas Trust Fund (FAP) and adopt implementation guidelines defined by the Project Committee; (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.

91. The arrangements of ARPA Phase 2 are defined in a presidential decree signed during the first Phase of implementation. Implementation agreements between MMA and FUNBIO, and between ICMBio and FUNBIO were signed in the first Phase and will be renewed as needed. The implementation agreements define each institution's responsibilities and obligations under the project. For state participation, a model cooperation agreement between their environmental secretariats and agencies, the Brazilian Federal Government, through MMA, and FUNBIO is included in the Project Operational Manual.

92. In addition, a cooperation agreement between MMA and FUNAI, was signed in the first Phase, and govern the relationship between these agencies. The MMA/FUNAI agreement spells out the responsibilities of FUNAI with respect to the demarcation of indigenous territories and activities related to ARPA by indigenous peoples, including the commitment to prioritize the demarcation of indigenous areas adjacent to any Protected Area to be created under ARPA Phase 2.
93. **Legal governance** The ARPA Program is legally governed by:

- Presidential Decree nº 4.326 establishing the ARPA Program;
- The Technical Cooperation Agreements between FUNBIO and each of the Brazilian Governmental implementing agencies;
- The separate Grant Agreements between FUNBIO and each of the three donors to the ARPA Program: i.e., the World Bank (acting as trustee for the GEF), KfW and WWF-Brazil;
- The *Acordo de Cooperação Financeira relativo aos "Projetos Demonstrativos Grupo A - PD/A - Subprograma Mata Atlântica"* (PN2001.6657.9) and "Amazonian Region Protected Areas - ARPA" (PN2002.6551.2), signed in 2003 (and amended in 2004) between the Brazilian and German Governments; and Presidential Decree nº 5.160 which implements that Agreement;
- The legal Charter and Operations Manual of FUNBIO; and
- Brazilian laws governing non-profit organizations and Public Interest Civil Society Organizations (OSCIPs).

94. **Cofinancing Partners**: The main parallel co-financing partners for ARPA Phase 2 are:

95. **World Wildlife Fund (WWF-Brazil)**. WWF intends to sign a grant in an amount of $10,000,000 (“WWF Grant”) to assist in the parallel financing of Components 1; 2; and 4 of the Project on the terms and conditions set forth in an agreement to be entered into between the FUNBIO and WWF (“WWF Grant Agreement”). WWF has also 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 is subject to annual renewal by the formal group of private donors.

96. **Kreditanstalt für Wiederaufbau (KfW)**. KfW intends to sign a grant in an amount of $30,000,000 (“KfW Grant”) to assist in the parallel financing of Components 1; 2; 3.2; and 4 of the Project on the terms and conditions set forth in an agreement to be entered into between the FUNBIO and KfW (“KfW Grant Agreement”). In addition, KfW has signed a grant agreement with the Federal Government of Brazil, through the MMA, and signed a separate project agreement (Acordo em Separado) with MMA, ICMBio, and FUNBIO to define the rules for the transfer of funds from MMA to FUNBIO, the utilization of funds, the disbursement procedures, and the control of utilization of the funds.

97. **Ministry of Environment (MMA)**. MMA and ICMBio will lead and coordinate the project implementation and will also finance, with federal fiscal resources, the implementation of activities under the Component 2 – Consolidation of Protected Areas. The table below summarizes the distribution of responsibilities among the different institutions for the execution and administration of each component of the project.

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31
### Table 1. Execution and administration responsibilities

<table>
<thead>
<tr>
<th>Components</th>
<th>Executors</th>
<th>Administrator</th>
<th>Potential Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Creation of new Protected Areas</td>
<td>MMA, ICMBio and States</td>
<td>FUNBIO</td>
<td>NGOs, FUNAI, INCRA, research institutes, academic institutions, grass roots organizations</td>
</tr>
<tr>
<td>2. Consolidation of Protected Areas</td>
<td>MMA, ICMBio and States</td>
<td>FUNBIO</td>
<td>NGOs, FUNAI, INCRA, research institutes, academic institutions, grass roots organizations, the private sector</td>
</tr>
<tr>
<td>3. Long-term financial sustainability of Protected Areas</td>
<td>MMA, FUNBIO</td>
<td>FUNBIO</td>
<td>MMA, ICMBio, States, NGOs, research institutes, academic institutions, grass roots organizations, the private sector</td>
</tr>
<tr>
<td>4. Project coordination, management, monitoring and communication</td>
<td>FUNBIO, ICMBio, MMA</td>
<td>FUNBIO</td>
<td>Stated, NGOs, research and academic institutions, IBGE</td>
</tr>
</tbody>
</table>

### II. Roles and responsibilities of each agency

98. The Project Operational Manual details the roles and responsibilities of each agency involved in project implementation, as summarized in this section. Within MMA, the *Executive Secretariat (SECEX)* has the responsibility for carrying out the overall institutional coordination required to implement project activities. SECEX oversees the functions of the Program Committee (CP) and the Scientific Advisory Panel (PCA) described below. In addition, one Technical Secretariat within MMA will be particularly involved: the Secretariat of Biodiversity and Forests (SBF) will be responsible for carrying out the executive coordination of the project through the Directorate of Protected Areas (DAP), housing and overseeing the functions of the Project Coordination Unit (UCP). SBF will carry out the strategic and institutional coordination of the Program, also promoting its harmonization with the National Environment Policy and other Governmental actions in the Amazon. SBF will also coordinate ARPA’s efforts to raise financial resources for FAP.

99. **Program Committee (CP).** It is an administrative and decision-making unit, and functions as the highest decision level of the Program. The Program Committee's purpose is to ensure compliance with proposed project objectives. To this end the committee will approve action strategies; define procedures and guidelines; approve the criteria applied by the Conservation and Investment Strategy; 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, as well as on strategic recommendations made by the other Program advising groups. The Program
Committee, to be chaired by the Executive Secretary of MMA, will be composed as follows:

Table 2: Members of the Program Committee

<table>
<thead>
<tr>
<th>Government</th>
<th>Civil Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 representative of SECEX/MMA</td>
<td>2 representatives of environmental</td>
</tr>
<tr>
<td>1 representative of SBF/MMA</td>
<td>NGOs</td>
</tr>
<tr>
<td>1 representative of DPCD/MMA</td>
<td>2 representative of social NGOs</td>
</tr>
<tr>
<td>1 representative of ICMBio</td>
<td>1 representative of FUNBIO</td>
</tr>
<tr>
<td>2 representatives of the Forum of State</td>
<td>1 representative of the private donors</td>
</tr>
<tr>
<td>Secretaries of Environment of the Amazon region</td>
<td></td>
</tr>
</tbody>
</table>

100. MMA and ICMBio representatives and alternates will be appointed by the Minister of Environment through a specific administrative act. The state representatives will be appointed by the State Forum of Secretaries of the Environment of the Amazon Region. 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 will be appointed by FUNBIO's Board of Directors. The donors will agree on a representative to participate in the CP. The mandate of the Program Committee members, as well as the frequency of meetings, among other definitions, shall be detailed in the Project Operational Manual.

101. **ICMBio** is responsible for preparing proposals for the creation of federal Protected Areas, managing the process of consolidating existing Protected Areas, preparing the Annual Operating Plans for federal Protected Areas, and providing the counterpart resources. The Directorate of Creation and Management of Protected Areas (DIMAN) within ICMBio will oversee the work of ICMBio and will coordinate with the Project Coordination Unit (UCP), MMA, and FUNBIO. The Directorate of Strategic Management will work closely with the Directorate of Ecosystems (DIREC) for "strict protection" PAs and with National Center for Traditional Populations (CNPT) for sustainable use Protected Areas. ICMBio will also be responsible for operating and maintaining the Conflict Mediation Committee, comprised of qualified representatives of ICMBio, MMA, and FUNAI, and chaired by ICMBio, responsible for addressing social conflicts arising as a result of Project implementation;

102. **The State Environmental Secretariats and Agencies of the Amazon Region** are responsible for preparing proposals for the creation of state Protected Areas, managing the process of consolidating new and existing state Protected Areas, preparing the Annual Operating Plans for participating state PAs, and ensuring the prompt availability of counterpart resources for the carrying out of the State’s pertinent part of the Project.

103. **Scientific Advisory Panel (PCA)** This panel is 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 is appointed by the Program Committee. The
mandates of the panel are 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. In ARPA Phase 2, the PCA is expected to play a larger role in decision making, especially in the selection of new Protected Areas, in accordance with the recommendations of independent evaluations of the ARPA Program.

104. **Project Coordination Unit (UCP):** The UCP is the executive implementing body under the Secretariat of Biodiversity and Forests (SBF) within MMA. The UCP serves as link between the Program Committee and the different executors. The UCP is responsible for supporting, executing, and supervising the different components; monitoring the project’s physical and financial activities (including GEF Tracking Tools updated based on the information provided by the PAs coordinators); revising and updating the Conservation and Investment Strategy; 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 Action Plans (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 to be reviewed by the Program Committee and by the donors. The UCP will also act as the executive secretariat for the Program Committee (CP).

105. **Technical Forum (TF).** This technical forum on Protected Areas is composed by representatives of the UCP, FUNBIO, and each executing agency. This forum oversees and monitors the progress of PAs according to the agreed targets, including financial execution; discusses and proposes adjustments to operations and project reference documents; and proposes the revision of methodologies to achieve Program objectives. The technical forum meets twice per year and *ad hoc* meetings may be called.

106. **FUNBIO.** FUNBIO shall operate and maintain, until completion of the Project, the Project Management Unit with the functions, responsibilities and structure set forth in the Operational Manual and comprised of qualified staff in adequate numbers and provided with such funding as required to provide daily financial management, procurement, implementation, monitoring and evaluation of the Project.
III. Financial Management, Disbursement and Procurement

107. ARPA’s administrative and financial procedures are detailed in the Project’s Operational Manual (MOP).

Annual Operating Plans

108. ICMBio, FUNBIO, and state environmental agencies, where appropriate, and under the scope of their respective responsibilities, will prepare Annual Operating Plans (POAs) and send them to the Project’s Coordination Unit. The POAs direct the application of financial resources allocated to the project. The UCP reviews the different POAs, seeks comments from other partners such as SBF/DAP and DPF, consolidates the different POAs into a single Project’s POA and sends it to the World Bank and other donors for "no objection". The Project’s POA is then sent to the Program Committee for approval. The UCP forwards the POA to FUNBIO and other agencies and administrative authorities in charge of POA execution. These agencies, in turn, implement the POA 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 for Phase 2.

109. The KfW resources are allocated to FUNBIO, and finance purchases and contracting of goods and services for "strict protection" PAs included in POAs approved by the Program Committee. POAs that include activities to be financed by KfW are reviewed jointly by KfW and the Bank, before the Bank officially approves the POA. Activities to be financed by KfW are exclusive from the activities to be financed by the other donors and the Government.
110. The WWF resources are allocated to FUNBIO, and finance creation and maintenance of the PA councils, equipments, PA Management Plans, buffer zone integration, project management, capacity building, technical studies carrying out and communications. Activities to be financed by WWF are exclusive from the activities to be financed by the other donors and the Government.

**Monitoring and Evaluation of Project Results**

111. A Project Monitoring and Evaluation (M&E) unit was created in Phase 1 within MMA to implement M&E activities independent of the Project Coordination Unit, and will continue to operate in Phase 2. The monitoring and evaluation indicators have been agreed to and are presented in Annex 1. Monitoring and evaluation of project implementation 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 will 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 2. Under Component 4, biological and/or socio-economic monitoring will be carried out (in consolidation stage 2 PAs) 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 Coordination Unit will transmit to the Bank progress reports on project implementation and outcomes not later than one month after the end of the period covered by such report. An Implementation Completion Report will be prepared within six months after closing of the grant.

**Financial Management Arrangements**

112. A Financial Management assessment was carried out in accordance with Bank guidelines. The financial management risk associated with the Project has been assessed as “Low”. The assessment of thanksFUNBIO and was considered satisfactory, due to FUNBIO’s adequate staffing, accounting and financial management systems and lack of any important audit findings, as detailed below. Implementation agency weaknesses include lack of an internal control/audit unit and adequate internal controls to monitor decentralized funds. Mitigation measures include: (i) preparation of a user friendly and detailed operational manual by negotiations, (ii) an update of the audit TOR for ARPA Phase 2; (iii) an update of the current IFR 1-A and 1-B no later than one month after the signature of the grant agreement; and (iv) close monitoring and follow up by the UCP staff, assuring proper field supervision missions to provide training on the Cérebro system, FM and disbursements procedures throughout project implementation.

113. Lessons learned show that mistakes under Phase 1 were related mostly to the lack of preventive internal controls and an internal audit unit. This is one of the main weaknesses of FUNBIO. The strengthening of FUNBIO internal controls and/or the establishment of an
internal control/audit unit should be discussed with its deliberative council. The Financial Management Supervision Missions are expected to be undertaken on a yearly basis.

114. RM - the accounting system - and Cérebro\textsuperscript{28} - the monitoring system – are fully operational and capable of running the agreed Interim Unaudited Financial Reports (IFRs) and satisfy Bank requirements. FUNBIO maintains and manages the RM system that has been used to manage other donor-financed projects, and as such, the system is considered acceptable for this project as well. Annual budget (POA) amounts approved by the Program Committee are updated in the RM system which is accessible to the UCP for budget execution and project monitoring.

115. **Decentralized Execution:** Funds will be withdrawn from the designated account and transferred to a ‘Conta Vinculada’, which is a bank account at the Banco do Brasil in the name of FUNBIO (administered by the Protected Areas) only to receive grants funds. FUNBIO reviews, monitors (through Cérebro and field visits) and approves the requests for new advances and keeps a copy of the support documentation, and the Internal Control is made *a posteriori*. No cash or petty cash payments will be allowed. The FUNBIO financial council staff are experienced and trained in Bank project requirements.

116. Interim Unaudited Financial Reports IFRs (1-A and 1-B) will be prepared on a cash-basis and will show expenditure figures by quarter, accumulated for the year and accumulated for the project. A specific ledger will be created in the system to record all grant transactions, and will be aligned with the structures of the grant cost and disbursement tables to record transactions by category and component/activity. They will be sent not later than 45 days after each calendar year quarter. Any counterpart contribution (in-kind or cash contributions) supporting the grant’s activities will be reflected in the IFRs.

117. An audit of the project’s annual financial statements (IFRs) will be conducted by an independent audit firm acceptable to the Bank, carried out in accordance with terms of reference acceptable to the Bank and the Bank’s audit policy under a multiyear contract. The audit will be due no later than six months after the end of the fiscal year. The audit report will contain a single opinion on the project financial statements and the designated account and a management letter (report on internal controls). The audit report will be subject to the World Bank policy on Access to Information. FUNBIO publishes its annual financial statements by posting them on the internet and through publication in a national newspaper.

\textsuperscript{28} The ARPA phase 1 internet-based financial management system (Cérebro) is a full service financial management system created by FUNBIO that enables all annual budget planning, review and approval, execution, and monitoring to occur in a secure, efficient, and transparent online environment. In the second phase an updated version, Cérebro II, will resolve minor problems encountered in the first phase.
Flow of Funds

118. **Designated Account.** FUNBIO will open a segregated designated account (DA), in Brazilian Reais, in the Banco do Brasil, with a Fixed Ceiling of BRL 5,300,000. Disbursements will be made based on Withdrawal Applications supported by statements of expenditure (SOEs), except for payments made under contracts for (i) goods, works and non-consulting services above US$ 500,000 equivalent, (ii) contracts with consulting firms above US$ 100,000 equivalent, and (iii) contracts with individuals above US$ 50,000 equivalent. In these cases, Records must be attached to a Summary Sheet (SS). The information required for the compilation of statements of expenditure is maintained by the financial management unit in the Cérebro/RM database.

119. **Other accounts:** KfW funds are channeled through MMA to a special project account also managed by FUNBIO. Similar disbursement procedures as described above for the DA apply to KfW funds and will be specified in the grant agreement between MMA, FUNBIO and the KfW. WWF will channel their funds directly to FUNBIO into a separate account.

Disbursements

120. FUNBIO will open a segregated designated account (DA) in Cérebro/RM at Banco do Brasil – in Rio de Janeiro to receive grant funds and did make payments in local currency.

121. FUNBIO will be responsible for processing all payments for works, goods and services. Payments will be made directly from the DA. Such arrangements are considered appropriate. This arrangement has the necessary segregation and level of approvals and can speed up implementation.

122. The following disbursement methods will be used: Advance, Reimbursement and Direct Payment. The Minimum Application Size with respect to Direct Payments and Reimbursements (not Advances) will be in US$ 600,000 equivalent. Applications documenting expenditure paid from the Designated Account should be submitted by FUNBIO ideally once a month but not later than once every three months, and must include reconciled bank statements as well as other appropriate supporting documents. The Project will also have a four month Grace Period.

123. All payments will be made through electronic deposits at each beneficiary/consultant bank account. Records, Summary Sheets and SOE’s will be used to document eligible expenditures. Original support documentation will be available at FUNBIO’s headquarters.

124. The following table specifies the categories of Eligible Expenditures that may be financed out of the proceeds of the Grant. No withdrawal shall be made for payments made prior to the date of the Grant Agreement, except that withdrawals up to an aggregate amount not to exceed US$1,589,000 may be made for payments made on or after January 1, 2012, for Eligible Expenditures under the Project.
<table>
<thead>
<tr>
<th>Category</th>
<th>Amount of the GEF Trust Fund Grant Allocated (expressed in USD)</th>
<th>Percentage of Expenditures to be Financed (inclusive of Taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Goods, works, Non-Consulting Services and Surveillance Activities(^{29}) under Parts 1 and 2 of the Project</td>
<td>8,390,000</td>
<td>100%</td>
</tr>
<tr>
<td>(2) Consultant Services</td>
<td>4,400,000</td>
<td>100%</td>
</tr>
<tr>
<td>(3) Training(^{30})</td>
<td>1,800,000</td>
<td>100%</td>
</tr>
<tr>
<td>(4) Operating Costs(^{31})</td>
<td>1,300,000</td>
<td>100%</td>
</tr>
<tr>
<td><strong>TOTAL AMOUNT</strong></td>
<td><strong>15,890,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Procurement Arrangements**

125. **General.** Procurement for the proposed project would be carried out in accordance with the World Bank’s “Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers”, dated January 2011; and “Guidelines: Selection and Employment of Consultants by World Bank Borrowers” dated January 2011, and the provisions stipulated in the Legal Agreement. The general description of various items under different expenditure categories is described below. For each contract to be financed by the Grant, the different procurement methods or consultant selection methods, the need for prequalification, estimated costs, prior review requirements, and time frame are agreed between the Grant Recipient and the Bank project team in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

126. **Procurement of Works.** Works procured under this project would include construction or extension of small head offices in Protected Areas. The procurement will be done using

\(^{29}\) the term “Surveillance Activities” means the cost associated with the creation and consolidation of Protected Areas, including: (i) travel and *per diem* for technical staff; (ii) rental of aircraft; and (iii) fuel and maintenance of vehicles, all for the carrying out of supervisory and quality control activities in Protected Areas under Parts 1 and 2 of the Project;

\(^{30}\) the term “Training” means the costs associated with the delivery of training and capacity building activities under the Project, including: (i) logistics; (ii) equipment rental; (iii) training materials, (iv) stationary for workshops and meetings; (v) lodging, (vi) catering services for coffee-breaks; (vii) rental of training facilities; and (viii) reasonable fees, travel, transportation, and *per diem* of trainers and trainees.

\(^{31}\) the term “Operating Costs” means recurrent costs associated with the coordination and implementation of the Project, including: (i) operation and maintenance of vehicles, repairs, fuel and spare parts (except those covered under Surveillance Activities); (ii) equipment and computer maintenance; (iii) shipment costs (whenever these costs are not included in the cost of goods); (iv) office supplies; (v) rent for office facilities; (vi) utilities; (vii) travel and *per diem* costs for technical staff carrying out supervisory and quality control activities (except those covered under Surveillance Activities); (viii) communication costs including advertisement for procurement purposes; (ix) salaries for the Recipient’s operational staff; and (x) all costs associated with audits;
the standard documents to request quotations from contractors, following Shopping procedures.

127. **Procurement of Goods.** Goods procured under this project would include vehicles, boats, satellite images, IT and electronic equipment, and household supplies. The procurement will be done using National SBD agreed with (or satisfactory to) the Bank for National Competitive Bidding (NCB). Small value purchases can be done through Shopping. Both under NCB and Shopping, the procurement can be carried out electronically through Comprasnet’s or Banco do Brasil’s reverse auction systems.

128. **Procurement of Non-consulting Services.** Non-consulting Services” means services which are of non-intellectual nature and that can be procured on the basis of performance of measurable physical outputs, including the cost of obtaining satellite images, installation of equipment, repairs and/or maintenance services, and land demarcation surveys. The procurement will be done using National SBD agreed with (or satisfactory to) the Bank for NCB. Small value purchases can be done through Shopping. Both under NCB and Shopping, the procurement can be carried out electronically through Comprasnet’s or Banco do Brasil’s reverse auction systems.

129. **Selection of Consultants.** Consulting services from firms and individuals procured under this project would include preparation of Protected Area management plans, land tenure studies, works supervision, engineering designs, communication and marketing plans, asset management, conservation finance studies, development of conservation financing mechanisms, legal advice, and preliminary studies to create Protected Areas. Individual consultants would be selected following the procedures set forth in Section V of the Guidelines, including sole-source selection procedures, whereas consulting firms would be selected following Quality and Cost Based Selection (QCBS), Least-Cost Selection (LCS), Selection under a Fixed Budget (FBS), Selection Based on Consultant’s Qualifications (CQS), or Single-Source Selection (SSS). Short lists of consultants for services estimated to cost less than $500,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

130. **Surveillance Activities and Training.** Costs for surveillance activities are costs associated with the creation and consolidation of Protected Areas, including: (i) travel and *per diem* for technical staff; (ii) rental of aircraft; and (iii) fuel and maintenance of vehicles, all for the carrying out of supervisory and quality control activities in Protected Areas under Components 1 and 2 of the Project, many of which would be financed through “contas vinculadas”. Training costs refer to costs associated with the delivery of training and capacity building activities under the Project, including: (i) logistics; (ii) equipment rental; (iii) training materials, (iv) stationary for workshops and meetings; (v) lodging, (vi) catering services for coffee-breaks, (vii) rental of training facilities; and (vii) reasonable fees, travel, transportation, and *per diem* of trainers and trainees.

131. **Operational Costs.** These costs would include recurrent costs associated with the coordination and implementation of the Project, including: (i) operation and maintenance of
vehicles, repairs, fuel and spare parts (except those covered under Surveillance Activities); (ii) equipment and computer maintenance; (iii) shipment costs (whenever these costs are not included in the cost of goods); (iv) office supplies; (v) rent for office facilities; (vi) utilities; (vii) travel and per diem costs for technical staff carrying out supervisory and quality control activities (except those covered under Surveillance Activities); (viii) communication costs including advertisement for procurement purposes; (ix) salaries for FUNBIO’s operational staff; and (x) all costs associated with audits.

132. “Contas Vinculadas”. The “contas vinculadas” are mechanisms for distribution of funds that allow for more autonomy of PA administrators to spend small amounts of their budgets on daily operation and maintenance of PA offices. These items are considered operational costs and would be procured using FUNBIO’s administrative procedures which were reviewed and found acceptable to the Bank. A detailed list of expenditures to be paid out of “contas vinculadas” would be included in the Operational Manual.

133. Assessment of the agency’s capacity to implement procurement. As a private entity, its regulations allow enough flexibility to apply the Bank's Guidelines, so no special provisions are required. A full assessment of FUNBIO’s capacity to implement procurement under the Bank’s procurement guidelines has been carried out and no major risks were identified. FUNBIO has implemented other Bank projects and has acquired good familiarity with the procurement rules, including using bidding documents, requesting prior and post reviews, and preparing procurement plans. Due to the nature of the project, and because only few selection processes might have a higher complexity, selecting them for prior review is an adequate measure to mitigate this residual risk. Some findings to be highlighted are: (i) FUNBIO uses a management system named Cérebro, which has a full procurement module. This system deals with procurement responsibilities and formalizes the decision making process; (ii) FUNBIO has a bidding and contracting manual, which was reviewed by the Bank and their procedures were considered acceptable; (iii) FUNBIO has an excellent filling system; (iv) the procurement unit is currently staffed with 8 experienced people, and it can be expanded if needed.

134. The overall project risk for procurement is Low.

135. Procurement Plan. FUNBIO, at appraisal, developed a Procurement Plan for project implementation which provides the basis for the procurement methods. It will also be available in the project’s database and in the Bank’s external website. The Procurement Plan will be updated in agreement with the Bank annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

136. Frequency of Procurement Supervision. In addition to the prior review supervision to be carried out from Bank offices, the capacity assessment of the Implementing Agency has recommended yearly supervision missions to visit the field to carry out post review of procurement actions.

137. Prior and Post Reviews. No ICBs or selections above US$300,000 (which require international advertising) are expected under the project. Goods, works, and non-consulting
service contracts estimated to cost above US$500,000, US$5,000,000 and US$500,000, respectively, per contract and all Direct Contracting will be subject to prior review by the Bank. Consultancy services estimated to cost above US$200,000 per contract and Single Source Selection of consulting firms and Sole-Source Selection of individual consultants for assignments estimated to cost above US$100,000 and US$50,000, respectively, will be subject to prior review by the Bank.

IV. Environmental and Social Safeguards

Social

138. Historically, lack of clearly defined property rights has fueled conflict and violence in the Amazon. Insecurity about future claims to land created the incentive to clear forest and use the land as quickly as possible. Currently, rural property registration in the Amazon faces the following challenges: (i) precarious rural property documentation; (ii) lack of a unified database of the different rural property legal systems of registration and record filing; (iii) ineffective supervision by the applicable public authorities; (iv) lack of adequate coordination among agencies involved in the process of registration and regularization of rural properties in both the federal and the state levels; (v) rural property measurement and precise identification problems; and (vi) lack of a unified current legislation, which often allows ambiguous interpretations and demand complex and lengthy procedures for the cancellation of illegal titles. The PAs creation has an important effect on avoiding deforestation by providing clear policy signs and environmental enforcement, supporting traditional peoples, redirecting territorial occupation and making conservation-based businesses more attractive.

139. Amazon contains 98% of all indigenous lands in Brazil. In a recent analysis, Pasca documents the threats in the Amazon for indigenous groups from the expanding economic frontiers and other sources. Pasca identifies a typology of threats including: (i) infrastructure works such as roads and hydropower projects; (ii) settlement (planned or spontaneous) and expansion of economic activities such as agribusiness, cattle ranching and timbering operations; (iii) threats from often illegal extraction of natural resources such as mining and commercial fishing, and other illegal activities; (iv) and threats from lack of or deficient inter-institutional coordination such as with respect to the provision of indigenous health services or conflicts between indigenous lands and Protected Areas.33

140. As stated in a recent study by Kirby et al., indigenous peoples play an important role in natural resource management in the Amazon: “Capacity building and engagement of local peoples should be a priority of conservation-oriented activities. In particular, indigenous peoples, whose lands cover 22.5% of the Amazonian biome and overlap with over 70% of Amazonian Protected Areas, will play a critical role in determining the future of

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32 Including mapping of plans for Brazil's Accelerated Growth Program (PAC) and the South-American Regional Initiative for Integration of Infrastructure (IIRSA).
Amazonian forests.”^34^ Sustainable use Protected Areas are used by traditional communities, whereas indigenous lands allow indigenous peoples to maintain their traditional livelihoods on areas designated specifically for their habitation. It is expected that the creation of sustainable use PAs will reduce the pressure by outsiders (e.g., timber companies, prospectors, land grabbers, etc.) on Indigenous Lands in some areas. Indigenous people may benefit from the formalization of land tenure and formalization of ownership of previously unclaimed lands. Consideration of indigenous peoples will be of paramount importance in the implementation of ARPA Phase 2. Local populations will play a more participatory role in PA management in Phase 2, and all safeguard issues related to indigenous people will be carefully considered at each stage of implementation.

**Environment**

141. The Amazon is globally recognized for the importance of its rich biodiversity, and the contribution of its vast forests to maintaining climate balance. The ARPA Program is essentially a conservation initiative, generating long-lasting benefits to the environment through the significant expansion of forest areas under protection. This will result in improved biodiversity protection and reduced deforestation, improving environmental capacity to adapt to climate changes in the Amazon Region. As ARPA supports the creation and long-term sustainability of both full protection and sustainable use Protected Areas, the project will also contribute to ensuring the environmental sustainability of extractive activities in supported PAs.

**Safeguards triggered**

**Environmental Assessment (OP/BP 4.01)**

142. The Environmental Management Framework (EMF) was prepared according to the guidelines, consulted and disclosed in country on March 18, 2011 and Bank’s web site on March 21, 2011. The ARPA Project Phase 2 is expected to generate benefits for the environment. The creation and consolidation of PAs has proved to be a viable strategy to reduce biodiversity loss and deforestation in the Brazilian Amazon, through the containment of anthropogenic pressures and the promotion of the sustainable use of natural resources. Also, the simple fact of designating land-use is already hugely effective in countering the illegal land market, by conferring permanent private and public land ownership rights.

143. The project is expected also to have a positive impact on social issues, as PAs (especially sustainable use PAs such as extractive reserves that allow human habitation) are important to securing land tenure for traditional communities. PAs greatly reduce the risk that these communities will be expelled or lose access to the natural resources they depend on for their livelihoods. However, considering that Phase 1 created a large area of PAs, there is now less land available for the creation of additional Protected Areas, specifically in the deforestation frontier. This aspect increases the likelihood for conflict with land owners and

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land grabbers in the deforestation frontier, despite the existence of a strong legal legislation framework for public consultation for the creation of new PAs (SNUC law).

144. To address this issue the PAs creation process will involve broad public consultations. The preparation of environmental, socioeconomic and land tenure diagnoses of the selected priority areas will be completed. Due to the characteristics of land tenure in the Amazon region, a significant portion of the forest area indicated by the Map of Priority Areas comprises unclaimed public lands, a condition that minimizes the necessity of land acquisition by the project. This approach was successful in Phase 1 and is expected to be replicated in Phase 2. Finally, the implementation agencies (MMA, ICMBio and state agencies) have already developed and successfully implemented an environmental management framework, including a resettlement framework, for the first Phase of the Program. These frameworks were revised and strengthened for Phase 2, along with the existing conflict resolution committee.

145. To improve integration of project objectives with local communities, the project will support PA-driven community integration action plans (APs) involving human populations inside or near PAs, and indigenous populations neighboring PAs (see Resettlement Framework (RF) and Indigenous Peoples Planning Framework (IPPF). Approved APs and Indigenous Peoples Action Plans (IPAPs) for specific PAs will be included in the PA annual operating plan and are to be implemented by the PA staff in conjunction with local communities. Thematic areas eligible for financing for site-specific IPAPs or APs include: (i) alternative livelihood activities to compensate for prohibited or limited activities; (ii) promoting the use of more sustainable technologies in relation to the use of natural resources; (iii) training activities pertaining to environmental conservation and sustainable natural resource use; and (iv) joint protection activities (including ensuring access to sacred sites), among others.

Natural Habitats (OP/BP 4.04)

146. This safeguard is triggered positively by the project’s activities related to the creation and strengthening of Protected Areas, and for its support to the community-based sustainable use of biodiversity. There is large potential for the project to be beneficial for biodiversity, given the major focus of the project in the creation and consolidation of Protected Areas in the Amazon Basin, including parks, biological reserves, ecological stations, extractive reserves and sustainable development reserves. In these latter two categories, traditional communities and indigenous groups can plan land use such that there are opportunities for income generation through traditional practices, while also averting large scale deforestation. Traditional communities and indigenous peoples land management and production are generally compatible and benign in terms of impacts on biodiversity, while the changing context surrounding community lands bring increasing pressure to carry out non-traditional forms of land use and management. Project activities and capacity-building will seek to foster conservation and sustainable management of natural resources while providing tools such as participatory diagnostics and planning activities, strengthening of local organizations, and participatory monitoring and evaluation that will generate an
improved platform for community decision-making on a sustainable use of the available natural resources.

**Forests (OP/BP 4.36)**

147. The project is expected to have a positive impact on forests. The creation of Protected Areas is a valuable tool for the protection of long-term ecological integrity of biodiversity-rich areas, the containment of anthropogenic pressures and the promotion of the sustainable use of natural resources. The planned new PAs include strict protection and sustainable use, in which traditional communities can plan land use aiming at income generation by traditional practices. Some of these activities might entail the use of forest resources. However, any use is expected to be small-scale or low-impact in nature and would be compatible with the safeguard requirements in regard to community or small-scale forestry activities. The standards and methodologies would be included in the environmental management framework with support for capacity-building in regards to the use of forest resources, both timber and non-timber.

**Physical Cultural Resources (OP/BP 4.11)**

148. It is not expected that project implementation will have any negative impact on physical cultural resources. However, chance findings during implementation activities are possible. To handle such findings, Brazil has a well-developed legislative and normative framework, which is under the oversight of the National Institute for the Protection of Historical and Archeological Sites (IPHAN), and FUNAI also has established procedures for safeguarding historical or pre-historical heritage pertaining to indigenous peoples, via the National Indian Museum which is an agency of FUNAI. The screening and action procedures for chance findings would be incorporated into the environmental screening section of the Project Operational Manual.

**Indigenous Peoples (OP/BP 4.10)**

149. The project triggers OP 4.10 since the project is located in the Brazilian Amazon, where about 60% of Brazil’s indigenous population or approximately 420,000 indigenous persons live. The preliminary screening indicates that 98% of regularized Indigenous Lands in Brazil are located in the Amazon Region and comprise almost 21% of its territory (approximately 90 million hectares of a total of 430 million hectares in the Amazon). There is also evidence of some 70 isolated or non-contacted indigenous groups in the Amazon. In the previous operation (ARPA Phase 1), an Indigenous Peoples Planning Framework (IPPF) was applied during implementation whenever project activities of creating or consolidating Protected Areas had any direct or indirect impacts on indigenous peoples whether positive or potentially negative. Project screening procedures ensured that Protected Areas under the project did not overlap with indigenous lands or land claims. Lessons learned during the previous operation are being applied to the new operation. To comply with OP 4.10, during preparation of Phase 2 a social assessment was carried out, as well as prior informed consultations with indigenous groups. Building on lessons learned in the previous operation, an updated Indigenous Peoples Planning Framework (IPPF) for the
current operation was prepared and consulted, and publicly disseminated prior to appraisal. The Indigenous Peoples Planning Framework (IPPF) was disclosed in country on January 7, 2011 and Bank’s web site on March 21, 2011. The IPPF is summarized in Appendix 1 of Annex 3.

Involuntary Resettlement (OP/BP 4.12)

150. It is not expected that physical involuntary resettlement will occur. Nonetheless, a Resettlement Framework (RF) was prepared, consulted and publicly disclosed in country on February 28, 2011 and Bank’s website on March, 21, 2011. The RESETTLEMENT FRAMEWORK (RF) is summarized in Appendix 2 of Annex 3.

151. Because the operation is a Protected Areas project, there may also be a potential for nonphysical displacement such as when the creation or consolidation of Protected Areas causes local populations to have restricted or even to lose access to natural resources they previously used. In order to mitigate these adverse impacts, the previous operation (ARPA) applied a Resettlement Framework (RF) that included a range of approaches from participatory co-management to the development of alternative livelihood activities. Lessons learned during the previous operation are being applied to the new operation. During preparation of Phase 2, a Resettlement Framework (RF) (PF) was prepared and consulted, as well as publicly disseminated prior to appraisal. The Resettlement Framework (RF) is summarized in Appendix 2 of Annex 3.
Annex 3, Appendix 1
Amazon Region Protected Areas Project Phase 2
Summary of the Indigenous Peoples Planning Framework (IPPF)

152. **Introduction.** Today it is estimated that the population of indigenous peoples in the Brazilian Amazon amounts to approximately 450,000 people (60% of the total indigenous population in Brazil). There are 405 regularized indigenous lands in the Amazon Region encompassing about 109 million hectares or about 21% of the region. Ninety-eight percent of all indigenous lands in Brazil are located in the Amazon Region.

153. **Ethnicities.** In the Amazon today, there are 170 different ethnic groups that speak 160 separate and distinct languages pertaining to 14 linguistic families. Many indigenous peoples also speak Portuguese, to varying degrees.

154. **Socio-cultural Context.** Unlike in the Andes and parts of Central America, the lowland South American aboriginal peoples of Brazil are traditionally organized at the tribal level with no political institutions above the village level. Most indigenous peoples in Brazil today retain their native languages and customs but are increasingly involved to varying degrees in the regional and national economies and social system. The socio-economic and ecological homeostasis of isolated tribes with Stone Age economies unconnected to the nation-state and the cash economy is increasingly changing. Today many Brazilian indigenous peoples live in precarious conditions. 16% of the national population lives in extreme poverty, but for indigenous people extreme poverty is estimated by IBGE at 38%. This is due to numerous factors including insufficient access to resources; contact and acculturation; growing cash needs; conflicts such as with invading gold miners or landless peasants; and other factors.

155. **Land Tenure: Threats and Challenges to Indigenous Lands.** According to the National Indian Foundation (FUNAI), of the 405 indigenous lands in the Amazon region, 70 are in stages of being identified, 37 have been formally delimited, and 292 are regularized. There are also an estimated 46 groups of non-contacted or isolated indigenous peoples, and while precise information is not yet available, many isolated groups are located inside or near potential Protected Areas.

156. Despite 21% of the Amazon being classified as indigenous lands, indigenous lands and peoples are subject to a variety of threats. In many areas of the Amazon, settlers, wildcat miners, ranchers and loggers have caused considerable environmental damage to the ecosystem, such as deforestation, and endangered the health and security of the indigenous peoples, as well as their ability to maintain traditional lifestyles and more sustainable livelihoods. National development programs bring settlement, roads, hydropower dams and other infrastructure.

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35 And 11 unclassified languages.
36 The process of regularizing indigenous lands in Brazil refers to the steps necessary to legally recognize them including: (i) Identification and Delimitation; (ii) Physical Demarcation; and (iii) Regularization which includes land registrations and a final Presidential Decree (homologação). Once regularized, indigenous rights to the land are legally guaranteed and they are assured perpetual usufruct or user rights.
157. Notwithstanding diverse threats, under traditional resource management regimes in indigenous lands - usually a combination of territorially extensive hunting and gathering, fishing and swidden horticulture - indigenous peoples have had relatively low adverse impacts on the natural environment. Consequently, some of Brazil’s most intact and preserved areas in terms of forest cover and biodiversity conservation are contained in the lands occupied by indigenous peoples, in some cases even more so than Protected Areas. Data show that 98.4% of indigenous lands in the Amazon are highly preserved; relatedly, only 1.3% of all deforestation in the Amazon occurs in indigenous lands.38

158. In general, Protected Areas (PAs) can be viewed as beneficial to indigenous peoples because they share the goal of conservation of natural resources, and PAs can serve as buffer zones for indigenous lands. In addition, experiences during the first Phase of ARPA show that indigenous groups are usually strongly supportive of the creation and consolidation of Protected Areas near or neighboring indigenous lands, as long as issues pertaining to indigenous natural resource uses within Protected Areas are satisfactorily resolved.

159. Nonetheless, the creation and consolidation of Protected Areas can also present challenges for indigenous peoples. There are approximately 42 cases in the Amazon Region where indigenous lands and Protected Areas overlap. Furthermore, it is especially important to further clarify the location of isolated or relatively non-contacted tribes. In cases of unresolved overlapping claims or the presence of isolated tribes, the project will not support the creation of new Protected Areas until the actual or potential conflicts with indigenous communities and/or lands have been satisfactorily resolved. In cases of overlaps with existing Protected Areas, the project will finance activities by the ICMBio Conflicts Management Unit to work inter-institutionally to address a variety of conflicts and find satisfactory resolutions. In addition, when indigenous peoples are present in the buffer zones neighboring Protected Areas to be financed by ARPA, the project will support the targeted formulation and implementation of site specific Indigenous Peoples Action Plans (IPAPs), described further below.

160. **Legal and Policy Issues.** The Brazilian Constitution of 1988 marked a departure point from previous integrationist policies and provides a firm basis for the recognition by the nation-state of cultural diversity and the perpetual and exclusive usufruct rights of indigenous people in Brazil to their territories, excluding sub-soil rights. The regularization of indigenous lands in Brazil is comprised of a multi-staged process led by FUNAI to identify and delimit, demarcate, register and homologate indigenous lands. The process of land regularization is further regulated by Decree 1775 adopted in 1996.

161. Although overall Brazilian environmental legislation is strong and Brazilian legislation and regulations on indigenous land regularization are also robust, there is a policy gap with respect to natural resource management in indigenous lands. In general, the applicability of national environmental regulations with respect to indigenous lands remains somewhat ambiguous.

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38 Data from the Instituto de Pesquisas Espaciais (INPA) and the Institute of Man and the Environment in the Amazon (IMAZON).
162. The antiquated Indian Statute (1973) which includes the regulatory framework for natural resources in indigenous lands is grounded in the assumption that indigenous peoples will remain "primitive," and remain exclusively subsistence economies. Decree No. 1141 (1994) authorizes FUNAI, in conjunction with the Ministry of Environment, to carry out environmental activities including, among others, environmental diagnostics, recuperation of degraded areas, environmental enforcement, environmental education, and identification and dissemination of environmentally appropriate technologies, however, to date FUNAI's capacity for this has been weak, but is currently being strengthened. A National Policy for the Environmental Management of Indigenous Lands (PNGATI) is still being developed. Another challenge is that many consider that the conceptual framework for conservation and sustainable use and management of natural resources in indigenous lands (gestão territorial) should ideally encompass more than just environmental protection and management (gestão ambiental) per se. The prevailing paradigm is that sustainable management of an indigenous land or territory must of necessity be far broader and more complex, and include social, political, economic as well as environmental dimensions, including traditional knowledge and management practices, and be developed in a highly participatory manner based on the indigenous vision of sustainable development. These issues are also being addressed under other operations, including a UNDP implemented GEF Indigenous Project currently being jointly executed by MMA and FUNAI to carry out pilots for conservation and sustainable development of natural resources in indigenous lands, and a new World Bank operation being prepared, Indigenous Peoples Sustainable Development Project.

163. The National Protected Areas System (SNUC, 2000) and subsequent regulations establish the legal framework for Protected Areas (PAs) in Brazil which are divided into two types, sustainable conservation units which can contain human populations under management regimes, and integral conservation units for strict conservation. As such, the regulatory frameworks for Protected Areas and for indigenous lands in Brazil are distinct.

164. The SNUC legislation supported the establishment of a conflict resolution mechanism that addresses a series of actual and potential conflicts between Protected Areas and other entities or human communities including indigenous peoples. ICMBio also established a Conflicts Management Unit that will be strengthened under ARPA-2 to help address overlap issues between existing PAs and indigenous lands. Nonetheless, the project will not finance activities in PAs until pertinent site specific potential or actual indigenous land issues are resolved.

165. Institutional Context. Federal, state, and non-Governmental organizations carry out activities with respect to indigenous peoples and lands in the Amazon Region. At the federal level, there is the National Indian Foundation (FUNAI) which has the mission to protect and promote indigenous peoples in Brazil. FUNAI has responsibility for indigenous land regularization, working on the resolution of indigenous land claims, protecting isolated tribes, and addressing issues of sustainable environmental management of indigenous lands, among others.

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39 Revisions are under discussion but a new statute has not yet been adopted.
166. Other federal agencies that provide services for indigenous peoples include the Special Secretariat for Indigenous Health in the Ministry of Health with responsibility for indigenous health, MMA with various environmental initiatives (including a program entitled Carteira Indígena), and in recent years, the Agrarian Development Ministry (MDA) has become much active in promoting agricultural activities with indigenous communities, especially in the areas of food security and commercialization. State level agencies vary from state to state, but frequently include an education secretariat and entities for indigenous affairs. There are indigenous non-Governmental organizations that work with indigenous communities, such as the Socio-environmental Institute (ISA), the Center for Indigenous Work (CTI), and the Missionary Indigenous Council (CIMI) which is linked to the National Bishops Council of Brazil (CNBB), among others. There are also environmental organizations that work with indigenous peoples such as The Nature Conservancy (TNC), Conservation International (CI) and the Amazon Conservation Team, (ACT), among others. While many indigenous villages and lands have associations, the two largest indigenous umbrella non-Governmental organizations in the Amazon are the Coordination of Indigenous Organizations of the Brazilian Amazon (COIAB), and the Federation of Indigenous Organizations of the Negro River (FOIRN). The Brazil Alternative Cooperation Network (RCA) also has a broader regional network.

167. Implementation Arrangements. The Project Coordination Unit in MMA will have overall responsibility for implementing the IPPF, including formulating the annual rank order lists, and targeting PAs to develop IPAPs. The project management unit in ICMBio will ensure that all consultations with FUNAI are carried out, that the Conflict Management Unit includes potential overlaps in its work program, and carry out the monitoring and evaluation of the IPAPs that are financed in PA Annual Operating Plans. The project will include a Cooperative Agreement with FUNAI. Specific IPAPs will be implemented by PA staff in conjunction with the IP with whom they developed them.

168. Consultations during Preparation. The formulation of ARPA was informed by inputs from multiple participatory processes carried out during the first Phase, and additional consultations carried out with stakeholders including civil society and indigenous peoples focused on the preparation of this second Phase. During 2010, five meetings were held on the IPPF with representatives of Government agencies such as FUNAI, MMA and ICMBio, NGOs such as COIAB, and indigenous leaders. This consultation process demonstrated broad interest on the part of indigenous peoples in the project and confirmed the elements for the project’s Indigenous Peoples Planning Framework (IPPF), summarized below, which was then publicly disseminated (entire document available in Portuguese in the Info Shop and MMA and ICMBio websites).

169. Based on the social assessment, consultations and interviews carried out during Phase 2 preparation, indigenous peoples of the Amazon were mainly concerned with the following key issues: The foremost issue focuses on completing pending indigenous land regularizations. However, indigenous land regularization is outside the scope or control of this project, and depends on FUNAI. The second concern relates to overlaps between indigenous lands and existing or potential Protected Areas. These concerns will be addressed in ARPA-2 in that no new PAs will be created nor consolidated until existing
indigenous land claims are satisfactorily resolved. The third issue is conflicts or incompatibilities between indigenous legislation and environmental legislation, particularly with respect to potential natural resource use restrictions. These potential incompatibilities, especially in cases where indigenous peoples depend on PA natural resources or have sacred sites within PAs, will be addressed by site-specific IPAPs to be developed under the project (and described below). The fourth issue raised by indigenous peoples was with respect to increased funding for a variety of development initiatives, however, while ARPA-2 will not finance development activities unrelated to PA environmental management, it will coordinate its activities with other Governmental and nonGovernmental programs and projects which do, such as the GEF Indigenous Project, Indigenous Carteira and Indigenous Demonstration Projects (PDPI), among others.

170. The principal elements of the project’s IPPF are as follows:

(1) No new Protected Areas will be created by the project until FUNAI officially informs the ARPA-2 UCP that there are no indigenous peoples or land claims inside the potential Protected Area.

(2) No new Protected Areas will be eligible for project financing for consolidation activities until FUNAI officially informs that existing indigenous land claims inside the Protected Areas are satisfactorily resolved. PAs created under ARPA-1 where subsequent indigenous land claims were made, will only be eligible for minimal investments (e.g. maintenance) until the land claim issues have been satisfactorily resolved.

(3) When indigenous peoples are present in the buffer zone of project supported PAs and are moderately to severely negatively impacted or potentially impacted by the PA natural resource restrictions, they will be eligible to develop and implement site specific Indigenous Peoples Action Plans (IPAP) to be financed via the PA Annual Operating Plan (POA).

171. Indigenous Peoples Action Plans (IPAPs). The overall objective of IPAPs is to foster collaborative management arrangements between neighboring indigenous peoples and the Protected Area, and to mitigate any potential natural resource use restrictions for indigenous peoples inside the Protected Area as well as to ensure indigenous access to sacred sites.

172. Target Population. ARPA-2 will formulate annually a rank-ordered list of the indigenous communities that neighbor project-financed PAs with respect to the degree of adverse effects or potentially adverse effects of PA natural resource restrictions on nearby indigenous groups. Each year, the most affected indigenous communities will be invited to work with the PA staff and PA Management Council (in which they participate) to develop a site specific IPAP.

173. Prerequisites. Requirements for the formulation and implementation of IPAPs are: (i) identified moderate to severe need to mitigate actual or potential negative effects on neighboring indigenous communities;\(^{40}\) (ii) the PA has minimum staff and a functioning Management Council (with indigenous members); as well as (iii) evidence of prior informed consultations with indigenous peoples in the development of the IPAP.

\(^{40}\) As per the rank ordered list researched and formulated by the ARPA-2 UCP each year.
174. **Thematic Areas.** Thematic areas eligible for financing under IPAPs include: (i) alternative livelihood activities to compensate for prohibited or limited activities; (ii) promoting the use of more sustainable technologies in relation to the use of natural resources; (iii) training activities pertaining to environmental conservation and sustainable natural resource use; and (iv) joint protection activities (including ensuring access to sacred sites). Subthemes will be further specified in the Project Operational Manual.

175. **Contents of IPAPs.**

- A rapid socioeconomic analysis of affected neighboring indigenous communities with particular attention to patterns and belief systems of indigenous natural resource uses inside the Protected Area, identification of actual or potential negative impacts of restrictions, as well as identification of co-management arrangements or other methods to mitigate adverse impacts.
- Evidence of culturally appropriate prior informed consultations with affected neighboring indigenous communities with respect to the proposed IPAP.
- Proposal for specific activities to be carried out and a budget.
- Timetable for the proposed activities.
- Implementation arrangements for the proposed actions (and technical assistance to be provided).
- Evidence that the draft IPAP was reviewed and approved by the site specific PA Management Council (including indigenous members).
- Description of how the IPAP will be monitored and evaluated.

176. **Project Components.** With respect to IPAPs, the financing for these activities would come from Subcomponent, 2.3, Integration with Communities. In addition, the project will promote dialogue activities for the creation of conservation mosaics or corridors that may include indigenous lands. Furthermore, under Component 3, experimental and pilot activities to test methodologies related to payment for environmental services or conservation services will be developed, and indigenous lands may be eligible for pilots. Lastly, Component 4, Coordination, Project Management, Monitoring and Communication, will support the site specific PA monitoring and evaluation systems to be developed for selected PAs, which will include the monitoring and evaluation of the human communities, including indigenous peoples near Protected Areas. The project will also finance the strengthening of the ICMBio Conflicts Management Unit.

177. **Monitoring and Evaluation.** All activities relating to the IPPF will be monitored and evaluated by a participatory process. Key indicators include: (i) Number of PAs with co-management arrangements with indigenous communities; (ii) Increase of IP representatives on PA Management Councils; (iii) Increased indigenous lands using natural resource management tools; and (iv) decreased negative effects on IP from PA restrictions. Monitoring and evaluation instruments will include: (a) progress reports on IPAPs from PAs implementing IPAPs; (b) annual meetings with indigenous leaders; and (c) inclusion of indicators for the IPPF in the midterm and final evaluations of ARPA Phase 2.
**Annex 3 - Appendix 2**

**Amazon Region Protected Areas Project Phase 2**

**Summary of the (1) Resettlement Planning Framework and the (2) Resettlement Framework (RF) for Mitigating Potential Livelihood Impacts**

(1) **Summary of Resettlement Planning Framework**

178. **Overview.** OP 4.12 is triggered on the very slight chance that physical resettlement or land acquisition might become necessary. During project implementation there will be no involuntary physical displacement or resettlement of persons from the selected Protected Areas being supported under the project nor any acquisition of land. No involuntary physical resettlement or land acquisition is expected for conservation areas to be financed from the long-term sustainable financing mechanism. Nonetheless, a Resettlement Framework (RF) was prepared, consulted and disseminated prior to appraisal, which is summarized below.

179. The Resettlement Framework (RF) is guided by a set of policy principles to:

- Avoid and/or minimize and mitigate potential negative social and economic impacts caused by the project;
- Ensure that all affected peoples, regardless of their tenure condition, receive proper compensation and/or assistance to replace assets lost and the restoration of livelihoods at an equal or superior level;
- Make certain that affected people are informed about their options and rights, as well as consulted on the available choices;
- Prepare, if necessary, a Resettlement Action Plan (RAP) consistent with the provisions of the Bank’s policy on resettlement for each activity that would involve resettlement (such plans should be sent to the Bank for approval before the sub-project is approved for financing).

180. **Eligibility.** Eligibility will be determined on a case by case basis once the necessary cadastres have been done. This would include all types of rural inhabitants and/or formal or informal groups, regardless of whether their lands and/or dwellings are legalized or not. Ineligible individuals would be persons who have fraudulent documentation, who are carrying out illicit activities or who entered the PA after the creation decree.

181. **Legal Framework.** The project’s Resettlement Framework (RF) is consistent with the existing legal framework in Brazil. There are, however, three main differences between the Bank’s Operational Policy on resettlement and the Brazilian legal framework. First, the Bank’s policy recognizes the right to assistance of those who have no recognizable legal right or claim to the land they are occupying at the time the census begins but have a claim to such assets. Second, the Bank’s policy considers support to affected peoples after displacement to restore their livelihood and standards of living (loss of income sources or means of livelihood). Third, the Bank’s policy considers effective compensation at full replacement cost for losses of assets attributable directly to the project. It should be noted that both the Bank’s and the Brazilian Government’s set of norms indicate that: (i) involuntary resettlement (including land acquisition and displacement) shall be avoided or
minimized when feasible; (ii) all viable alternative project designs should be explored; and (iii) where displacement is unavoidable, people losing assets, livelihoods, or other resources shall be assisted in improving, or at a minimum regaining, their former status of living at no cost to themselves. Based on the analysis of these differences and common points, the Grant Recipient has agreed to implement the policy principles of the Resettlement Framework (RF) as stated above for the activities to be financed by the project.

182. Institutional Arrangements. The project coordination unit in MMA will have overall responsibility for implementing the Resettlement Framework (RF). The project management unit in ICMBio will ensure that the Resettlement Framework (RF) is implemented and monitored in close coordination with site specific PA staff.

183. Grievance Procedures. The methods for the creation and consolidation of PAs in Brazil are highly participatory, with consultations required. If persons have complaints they believe are not being adequately addressed, they can access the Coordination of Conflict Management in ICMBio for further action.

184. Monitoring and Evaluation. The project's M&E system will include process and outcome indicators for the Resettlement Framework (RF).

(2) Summary of Resettlement Framework (RF)

No Physical Displacement.

185. During project implementation there will be no involuntary physical displacement or resettlement of persons from the selected Protected Areas being supported under the project nor any acquisition of land. No involuntary physical resettlement or land acquisition is expected for PAs to be financed from the long-term sustainable financing mechanism.

Potential Impacts on Livelihoods and Project Strategy.

186. Overall the project is expected to contribute to positive social outcomes relating, for example, to increased well-being and livelihood security for populations living in sustainable use PAs, as well as improved natural resource and environmental conditions and potential economic benefits to local populations from improved tourism, local involvement in PA management as well as expected additional or improved opportunities from park management and nature-related tourism, and other economic opportunities.

187. In the Brazilian Amazon, many of the rural poor who live in sustainable-use PAs to be created or consolidated, are squatters who practice resource extraction, such as rubber tappers and nut gatherers, combined with fishing, hunting and subsistence agriculture. Since the 1970s, there was a movement in Brazil led by Chico Mendes (after whom the Brazilian environmental agency is now named) to establish conservation-and-development units where local populations would gain long-term concessions to usufruct combined with management plans to promote conservation. The first such conservation-and-development unit was established in Brazil in the 1990s, and was later codified in SNUC as sustainable development Protected Area. Hence, the creation and consolidation of these sustainable development PAs provide long-term usufruct and livelihood security for local populations.
188. However, some livelihood activities in sustainable-use Protected Areas could potentially be adversely impacted such as limits on cattle raising and other restrictions. Generally the management plans of conservation-and-development units are formulated in a highly participatory process where the local population commits to co-manage the area. Hence, for sustainable use Protected Areas the formulation, approval and implementation of the co-management plan are key elements for mitigating the potential negative effects of natural resource restrictions. In addition, the project will also support targeted local sustainable action plans that incorporate other elements to support the management plan and to mitigate these risks, such as support for alternative technologies, income generation activities, and participatory protection activities.

189. In integral conservation PAs which do not formally include local populations inside the PA, methods for mitigating potential adverse effects include Terms of Use (TACs) for inhabitants remaining inside the area while the regularization of the PA is still being processed, and co-management plans to be developed with the neighboring populations in buffer zones. The main potential adverse effects of the creation and consolidation of integral conservation PAs is that local and neighboring populations may be restricted in terms of the use of the PA natural resources. A key element for mitigating such risks is the promotion of a high degree of local involvement in the formulation, approval and implementation of PA management plans. In addition, the project will support targeted local sustainable action plans that incorporate other elements to mitigate risks of restricted access to PA resources, such as support for alternative technologies, income opportunities in PA management, and others.

190. In the case of neighboring indigenous peoples near all types of PAs, the actions to be carried out by the project are described in the project's Indigenous Peoples Planning Framework (IPPF).

191. Hence, due to the project's conservation strategy, it will sometimes be necessary that persons or communities change some ongoing negative practices, such as restricting or prohibiting the use of certain areas or resources. The project will address potentially negative adverse effects of such restrictions, as further detailed below.

Project Principles for the Resettlement Framework (RF)

a) Minimizing Adverse Socio-economic Impacts. One principle that the project will adopt is to avoid negative social impacts as much as possible. Thus, an overall project strategy is to create and consolidate sustainable use PAs (which include human populations) when the target areas are already inhabited. Especially in sustainable use PAs, the utilization plans that are formulated together with the resident community take into account the actual practices of the natural resource users in each PA that are compatible with conservation. The project will strive to create and consolidate integral PAs in areas without human populations. Decisions pertaining to the category of PA will be taken on the basis of technical and social analysis, and through consultations.

b) Participation. SNUC provides for highly participatory processes in the creation and consolidation of PAs which will be followed in the project. There is active local participation in

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41 Termo de Compromisso defined in Paragraph 1 Article 39 of Decree 4.340 of 2002.
the formulation of PA utilization plans, composition of PA Management Councils, and for PA management plans. In addition, the formulation, implementation and monitoring and evaluation of targeted sustainable action plans to be supported by the project, will also be developed and implemented in a highly participatory manner.

c) **Ensuring Socioeconomic Well-Being.** The mechanisms described in (a) and (b) above are designed to ensure the socioeconomic well-being of human communities inside or near PAs. Nonetheless, targeted sustainable action plans will also be financed by the project from Subcomponent 2.3, Integration with Communities, in cases where there are moderate to severe risks of adverse economic impacts on communities due to natural resource restrictions or prohibitions. These are described in more detail in the following section.

d) **Target Population.** This Resettlement Framework (RF) will apply to those persons and organizations that are directly affected by restrictive measures from the creation and/or consolidation of PAs in the Brazilian Amazon, specifically those who: (i) Are subject to limitation of resources needed for their subsistence; and (ii) Might undergo negative effects on their means of subsistence or productive activities.

e) **Respect to National Laws.** This Resettlement Framework (RF) applies regardless of the absence of legal land titles or deeds. However, it does not apply to persons who carry out activities or actions classified as illegal under national laws (e.g. poaching, illegal mining, etc.).

f) **Respect for Cultural Diversity.** The definitions of restrictions to practices in PAs will take into account the subcultures of local populations in or near each selected PA as well as traditional knowledge practices. Indigenous communities neighboring PAs with potential or actual natural resources restrictions will also be eligible for site specific action plans (under Subcomponent 2.3), as detailed in the IPPF.

**Guidelines for Sustainable Action Plans**

a) The project will finance induced and targeted sustainable action plans for human populations inside or near PAs, and for indigenous populations neighboring PAs (see IPPF). Approved action plans for specific PAs will be included in the PA annual operating plan and are to be implemented by the PA staff in conjunction with local communities.

b) Each year a priority list will be formulated rank ordering the PAs with the highest degrees of potential or actual negative economic impacts on local populations due to natural resource restrictions. Each year the PAs with the most serious negative impacts, generally moderate to severe impacts, will be targeted and requested to send action plans for the mitigation of negative impacts.

c) In order for the PAs to submit proposals for action plans to be financed by Subcomponent 2.3 they must meet the following pre-requisites:

d) For sustainable use areas, the PA must have an approved utilization plan, management council formed, and minimum PA staff.

e) For integral areas - must have management councils formed, terms of commitment done, and minimum PA staff.
Action plans will finance the following types of activities (thematic areas):

a) Sustainable technology promotion in relation to the use of natural resources;
b) Alternative livelihood activities to compensate for prohibited activities;
c) Trainings pertaining to environmental conservation and sustainable natural resource uses;
d) Joint protection activities.

Content of action plans will include:

1) Rapid socioeconomic diagnostics of the affected populations with identification of the potential or actual negative effects of natural resource restrictions;
2) Evidence of culturally appropriate consultations with the affected populations;
3) Proposal for specific activities and a budget;
4) Timetable of proposed actions;
5) Implementation arrangements for proposed actions (and technical assistance to be provided);
6) Evidence that the action plan was reviewed and approved by the site specific PA Management Council;
7) Explanation of how the activities will be monitored and evaluated.

192. Action plans will then be submitted to the project management unit for review, and approved action plans will be financed by inclusion in the site specific POA for specific PAs.

193. **Project Components and Financing.** With respect to sustainable action plans, the financing for these activities would come from Subcomponent 2.3, Integration with Communities. In addition, Subcomponent 2.2, Integrated Management, will promote dialogue activities to support the creation of conservation mosaics or corridors. Also, under Component 3, experimental and pilot activities to test methodologies for payment of environmental services or conservation services will be developed, and some communities in the project area may be eligible for pilots. Lastly, Component 4, Coordination, Monitoring, Communications and Management, will support the site specific PA monitoring and evaluation systems to be developed for each conservation unit, which will include the monitoring and evaluation of the human communities. The project will also finance the strengthening of the ICMBio Conflicts Management Unit.

194. **Institutional Arrangements.** The project management unit in MMA will have overall responsibility for implementing the Resettlement Framework (RF), including formulating the annual rank order lists, and targeting PAs to develop sustainable action plans. The project management unit in ICMBio will ensure that the Resettlement Framework (RF) is implemented and monitored in close coordination with site specific PA sustainable action plans. Site specific sustainable action plans will be implemented by PA staff in conjunction with the communities with whom they developed them.

195. **Monitoring and Evaluation.** The project's M&E system will include process and outcome indicators for the Resettlement Framework (RF), with particular attention to assessing the mitigation of actual or potential negative effects of natural resource restrictions.
Annex 4: Operational Risk Assessment Framework (ORAF)

BRAZIL AMAZON REGION PROTECTED AREAS PROJECT PHASE 2
(ARPA 2)
Stage: Board

<table>
<thead>
<tr>
<th><strong>Project Stakeholder Risks</strong></th>
<th><strong>Rating</strong></th>
<th><strong>Moderate</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> Although there is a strong constituency in the Amazon in favor of protected areas, most notably indigenous groups and traditional communities, there is also a constituency that is opposed to PAs, especially at the deforestation frontier. Risk of conflict might be higher in the second Phase since the ‘low hanging fruit’ of less contentious PAs were created in Phase 1. The stakeholder risk is higher because there is less land available for PAs in Phase 2. This means more people are likely to be affected by new PAs, and more disputes could be expected.</td>
<td><strong>Risk Management:</strong> Creation of PAs will follow appropriate Government Legislation and Bank procedures related to Involuntary Resettlement (OP/BP 4.12) and Indigenous Peoples (OP/BP 4.10) Policies. Designating and managing protected areas in the Amazon will be a participatory process, with opportunities for local stakeholders to comment on selection and to participate in management through PA management councils. ICMBio has established a conflict mitigation committee that worked well in Phase 1 and will continue to address complaints.</td>
<td><strong>Resp:</strong> MMA/UCP, ICMBio, States</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Implementing Agency Risks (including fiduciary)</strong></th>
<th><strong>Rating:</strong></th>
<th><strong>Moderate</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capacity</strong></td>
<td><strong>Description:</strong> ICMBio is a recently created agency and still relatively weak. Additionally, staffing at the PA level is an issue due to the remoteness of many areas, which contributes to high staff rotation. Institutional strength of state environmental agencies (OEMAs) varies from weak to moderate, but staffing; adequate training and resource availability are common issues.</td>
<td><strong>Risk Management:</strong> Institutional strengthening activities will be continued in Phase 2. At the PA level, the project will maintain staffing criteria applied during Phase 1 for PAs receiving project support and, if necessary, additional criteria will be established to ensure adequate staffing of PAs. State environmental agencies’ deficiencies are addressed either through the project or through other projects and partnerships.</td>
</tr>
<tr>
<td><strong>Governance</strong></td>
<td><strong>Description:</strong> There is a moderate risk that staff turnover at the local level could disrupt project implementation. Technical staff in the implementing agencies has high capacity and competence and performed well in Phase 1.</td>
<td><strong>Risk Management:</strong> Efforts will be made to maintain the high performing technical staff in the field.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Project Risks</strong></th>
<th><strong>Rating:</strong></th>
<th><strong>Moderate</strong></th>
</tr>
</thead>
</table>
**Design**

**Description:** This is the second Phase of an on-going program, there is a relatively low project design risk. The design is based on an independent evaluation of the first Phase of ARPA, which recommended (i) improving monitoring, both in protected areas and for the project itself, and (ii) strengthening the FAP. Furthermore, the criteria for consolidation were found to be unrealistic in the Amazon and will be revised in Phase 2. In these areas where new approaches will be tried, there is risk that monitoring or consolidation criteria will not be improved as planned.

**Risk Management:** Studies and consultations will be carried out to design the best possible monitoring system, and to reform consolidation criteria with the information available.

**Resp:** MMA/UCP, FUNBIO.  
**Stage:** Implementation  
**Due Date:**  
**Status:** Ongoing

**Social & Environmental**

**Description:** Safeguards triggered by the project include: Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), Physical Cultural Resources (OP/BP 4.11), Indigenous Peoples (OP/BP 4.10), and Involuntary Resettlement (OP/BP 4.12), which make the risk of this project moderate to high.

The Ministry of Environment remains committed to building and consolidating a PA system without removing or disrupting the lives or livelihoods of the resident populations. However, there remains a slight possibility of resettlement in some areas.

An Environmental Management Framework (EMF) was out for Phase 2 in order to quantify both positive and negative impacts on the environment. The EA was distributed for comment and all comments were presented at appraisal.

**Risk Management:** Consultations have been held with indigenous peoples and more will be held regarding resettlement and the environmental impact evaluation. During project preparation a Resettlement Framework (RF) was prepared and consulted, as well as publicly disseminated prior to appraisal. There is a potential for non-physical displacement and therefore a Resettlement Framework (RF) was prepared, consulted and publicly disseminated prior to appraisal.

It is not expected that project implementation would have any negative impact on physical cultural resources. However, chance findings during implementation activities of subprojects are possible. To handle such findings, Brazil has a well-developed legislative and normative framework

During the first Phase, the implementation agencies (MMA, ICMBio and State agencies) developed and successfully implemented an environmental management framework, including a resettlement framework.

The Conflict Mediation Committee institutionalized within ICMBio will be strengthened, and will be allocated increased resources in order to address all possible issues during implementation.

**Resp:** MMA/UCP, ICMBIO, States, FUNBIO  
**Stage:** Implementation  
**Due Date:**  
**Status:** Ongoing

**Program & Donor**

**Description:** The risk is low in this area considering that the donors have a strong commitment to the project, as evidenced by increased commitments from KfW and WWF.

**Risk Management:** The design and operation of project financial management systems will be improved, with ARPA technical and information management better integrated into these systems.

**Resp:** MMA/UCP, FUNBIO  
**Stage:** Implementation  
**Due Date:**  
**Status:** Ongoing

**Delivery Monitoring & Sustainability**

**Description:** In the first Phase of ARPA, delivery quality was rated satisfactory. It is expected that by building on

**Risk Management:** Ongoing involvement and communication between all involved parties and active supervision will help ensure that delivery quality is high and sustainability of
successes and improving certain aspects based on lessons learned delivery will continue to be of high quality, but in areas where procedures are changed there is some risk of problems or delays.

Since this is the second Phase of an ongoing project, it is expected that delivery will continue to be strong, although some modifications to the design and implementation arrangements propose some risk as these procedures will not have been “tested” before.

**Implementation Risk Rating:** The overall implementation risk is “Low”
Annex 5: Implementation Support Plan

196. The Project Implementation Support Plan (ISP) describes how the Bank, public entities and other development partners will address the risk mitigation measures (identified in the ORAF) and provide the technical advice necessary to facilitate achieving the PDO (linked to results/outcomes identified in the result framework). The ISP below also identifies the minimum requirements to meet the Bank’s fiduciary obligations.

197. The Ministry of Environment in Brazil has strong capacity, and performed well in the first Phase. Federal and state Governments also have strong capacity in Brazil. FUNBIO and the Chico Mendes Institute for Biological Diversity (ICMBio) are relatively new institutions and can benefit from technical assistance. The World Bank, WWF, and KfW as the supporting donors to the ARPA project, will provide guidance in accordance with each institution’s comparative advantage.

Implementation Strategy - Potential Risks

198. As described in the ORAF, there are moderate risks to some stakeholders, especially because the social safeguards of Indigenous Peoples (OP/BP 4.10) and Involuntary Resettlement (OP/BP 4.12) have been triggered. Although the public perception of ARPA Phase 1 is likely to be positive, if people’s livelihoods are disrupted by the creation of new Protected Areas, or if resettlement in fact needs to take place, perceptions of the project could change. The Bank has a strong relationship with the Government of Brazil, and the risk to grant recipient relations from this project is low. The relationship between the Bank and the other donors, WWF and KfW is also expected to be strengthened during implementation, and the risk to donor relations is low.

199. There are some risks related to the implementation agencies. There are many organizations at different levels involved in implementation, and the coordination established in the first Phase, while functional, was not the most efficient possible. Additionally, some of the institutions involved are relatively new, and are still establishing their relationships with relevant partners. However, the organizations involved are transparent and there have not been cases of fraud and corruption in the agencies involved.

200. Selecting areas to be designated as Protected Areas will be technically challenging and may be controversial. Selecting areas to achieve the maximum possible conservation benefits while also avoiding resettlement will be a challenge; if done well, this process will take time. As mentioned there are a number of safeguard risks associated with the ARPA Program that will need to be managed carefully.

201. Although the trust fund aspect of the project is expected to ensure sustainability, long term success in Protected Areas management in the Amazon will depend on an efficient turn over once Bank and other donor support ends when the project closes.
Administrative and Fiduciary Flexibility

202. Disbursement categories will be aligned with components, allowing flexibility in the use of funds to reach specific targets. The annual operating plans and annual procurement plans will allow the Government, donors and Bank to plan the use of funds based on actual opportunities and needs.

203. The initial disbursement size and reimbursement amounts were determined after the project’s disbursement official has reviewed the project scope and likely disbursement profile. For procurement, appropriate streamlining and thresholds for prior and post review were established after the relevant Bank experts have reviewed and assessed the FUNBIO institutional capacity. An audit of annual project financial statements will be conducted by an independent auditing firm and in accordance with terms of reference acceptable to the Bank.

204. Tables 1 and 2 provide the main activities to be carried out and respective skills/resources required for the project implementation.

Table 1: Implementation Support Plan.

<table>
<thead>
<tr>
<th>Time</th>
<th>Focus</th>
<th>Skills Needed</th>
<th>Resource Estimate</th>
<th>Partner Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>First twelve months</td>
<td>Establishing fiduciary systems in FUNBIO;</td>
<td>Procurement and FM Expertise</td>
<td>Included in project annual operating plan ($60,000).</td>
<td>FUNBIO to provide staff, space and equipments.</td>
</tr>
<tr>
<td></td>
<td>Communications strategy development and implementation</td>
<td>Communications specialists</td>
<td>$30,000 (in annual operating plan)</td>
<td>MMA/ UCP to identify, host</td>
</tr>
<tr>
<td></td>
<td>Environmental-Social Management framework in place</td>
<td>Social/ indigenous peoples specialist; environmental impact evaluation experts</td>
<td>$30,000</td>
<td>MMA/ICMBio staff to monitor Indigenous Peoples Framework, overall ESMF</td>
</tr>
<tr>
<td></td>
<td>Establishment of Committees and working groups</td>
<td>Organization of regular high level meetings</td>
<td>No cost to project</td>
<td>MMA leadership</td>
</tr>
<tr>
<td></td>
<td>Sign inter-institutional agreements</td>
<td>Legal expertise and political support to engage relevant agencies and partners</td>
<td>No cost to project</td>
<td>MMA leadership</td>
</tr>
<tr>
<td>12-48 months</td>
<td>Project’s investments and bidding process adequately operating</td>
<td>Procurement and FM expertise</td>
<td></td>
<td>FUNBIO leadership</td>
</tr>
</tbody>
</table>
Carry out identification studies for PA creation.

Environmental-Social Management Framework in place. Establish priority investments for existing PA consolidation.

Capacity building plans implementation

Frequent update of the project M&E system.

Project Completion

Impact evaluation and sustainability planning.

<table>
<thead>
<tr>
<th>Skills Needed</th>
<th>Number of Staff Weeks</th>
<th>Number of Trips</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safeguards (social, indigenous peoples, and environment; other safeguards per project documents)</td>
<td>Bank supervision will require 6 SWs per FY (mainly senior technical staff)</td>
<td>Two trips per fiscal year</td>
<td></td>
</tr>
<tr>
<td>Institutional Capacity strengthening (FM, procurement, disbursement,)</td>
<td>14 SWs per FY (Mix of junior and senior technical staff)</td>
<td>One trip per fiscal year</td>
<td></td>
</tr>
<tr>
<td>Technical Expertise Enhancement (M&amp;E, Knowledge sharing, technical support)</td>
<td>5 SWs per FY (Mix of junior and senior technical staff)</td>
<td>Two trips per fiscal year</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Skills Mix Required
## Annex 6: Team Composition

**World Bank staff and consultants who worked on the project:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Project Roles</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adriana Moreira</td>
<td>Senior Environment Specialist</td>
<td>TTL</td>
<td>LCSEN</td>
</tr>
<tr>
<td>Cristina Roriz</td>
<td>Operations Analyst</td>
<td>Environmental Management Issues.</td>
<td>LCSRF</td>
</tr>
<tr>
<td>Daniella Arruda</td>
<td>Team Assistant</td>
<td>Administrative Assistant</td>
<td>LCS5C</td>
</tr>
<tr>
<td>Judith Lisansky</td>
<td>Senior Anthropologist</td>
<td>Social safeguards</td>
<td>LCSSO</td>
</tr>
<tr>
<td>Valerie Hickey</td>
<td>Environment Specialist</td>
<td>Safeguards support</td>
<td>LCSDE</td>
</tr>
<tr>
<td>Luciano Wuerzius</td>
<td>Procurement Specialist</td>
<td>Procurement issues</td>
<td>LCSPT</td>
</tr>
<tr>
<td>Susana Amaral</td>
<td>Financial Management Analyst</td>
<td>FM Issues</td>
<td>LCSFM</td>
</tr>
<tr>
<td>Isabella Micali-Drossos</td>
<td>Senior Counsel</td>
<td>Legal Issues</td>
<td>LEGLA</td>
</tr>
<tr>
<td>Augusto Mendonça</td>
<td>Safeguards Specialist-environment</td>
<td>Safeguards support</td>
<td>LCSSO</td>
</tr>
<tr>
<td>Alberto Costa</td>
<td>Safeguards Specialist-social</td>
<td>Safeguards support</td>
<td>LCSSO</td>
</tr>
<tr>
<td>Agnes Velloso</td>
<td>Consultant</td>
<td>Document preparation</td>
<td></td>
</tr>
<tr>
<td>Caitlin Sanford</td>
<td>Intern</td>
<td>Support to document preparation</td>
<td></td>
</tr>
</tbody>
</table>
Annex 7: Protected Areas Endowment Fund (FAP)\textsuperscript{42}

Introduction

205. To ensure the long-term maintenance of the Protected Areas under the ARPA Program, its sponsors have incorporated an environmental trust fund into its financial design. The purpose of the Protected Areas Endowment Fund is to help address the critical need for secure and reliable sources of financial support for the system of Protected Areas in perpetuity. The ARPA sponsors have estimated that a permanent endowment of approximately US$ 250 million will be required to meet the long-term needs of the ARPA Program, and have been working to establish the Fund.

206. In the second Phase of ARPA, the Trust Fund will begin the transition to the long-term maintenance stage. The Protected Areas Endowment Fund will then become the central financing mechanism that is expected to cover the core recurrent costs needed to effectively manage the expanding system of protection in perpetuity. The remainder of the core recurrent costs will be financed primarily through the Government budget allocations. Resources mobilized through the Fund will not only finance Protected Areas created through the ARPA Program, but also PAs created through other efforts and sanctioned by the Government of Brazil.

207. The Protected Areas Endowment Fund is currently capitalized at US$ 27.2 million. The ARPA project partners are now looking to increase the Trust Fund by at least 150%, bringing the total to US$ 70 million (US$ 42.8 million in new funds). This would ensure the smooth Program continuity in Phase 2 as ARPA Protected Areas graduate and qualify for sustainable financing. These funds will be further increased in the third Phase of ARPA.

208. In parallel, the ARPA partners are working to develop alternative sources of sustainable financing to supplement what can reasonably be expected to be raised for the Trust Fund from traditional funding sources. One of the most promising alternatives is to justify ARPA as a top priority mechanism to receive carbon finance as a part of the Brazilian Government’s plan to attract voluntary contributions to underwrite efforts to lower deforestation rates in the Amazon.

Summary of Institutional and Legal Structure

209. Fundo de Áreas Protegidas (FAP- or the Protected Areas Endowment Fund) is not a legally independent institution, but is simply a restricted account within FUNBIO. FAP does not have its own governing board, nor is there any special committee within FUNBIO that is dedicated exclusively to managing FAP. The Fund’s assets are legally owned by FUNBIO. However, the ARPA Program Committee (“CP”) currently has the sole authority to decide how to spend the Fund’s assets (i.e., to approve each year’s annual spending plan,

\textsuperscript{42} This information is from FAP Prospectus, May 2008 and the Preliminary Report on the Fundo de Áreas Protegidas (FAP) of the Amazon Region Protected Areas Program (ARPA) September 2008, both prepared by Barry Spergel, Consultant.
or “POA”), subject to “no objection” from the donors, with respect to their contributions to FAP.

210. Six of the CP’s 12 members represent Brazilian Governmental institutions, and the other 6 represent Brazilian NGOs, including FUNBIO and WWF-Brazil (which represents FAP’s donors). FAP’s other donors - KfW, World Bank-GEF, Natura, and Boticário - are not members of the CP.

211. After ARPA’s Phases are completed, the CP will cease to exist. The authority to make decisions on FAP resources will therefore be the Technical Commission, subject to “no objection” from the donors. Additional information on the Technical Commission composition and role will be provided by the Operational Manual.

212. Decisions about spending FAP’s resources must be in accordance with the basic legal documents of the ARPA program, including:
1. Presidential decrees;
2. Grant agreements between the ARPA donors and FUNBIO;
3. Technical cooperation agreements between FUNBIO and partnering organizations
4. Brazilian federal and state Governments; and
5. FUNBIO’s own charter and operations manual.

213. Since FUNBIO is a Public Interest Civil Society Organization (OSCID), and since FUNBIO legally “owns” FAP’s assets, those assets cannot be legally transferred to the Government of Brazil. If FUNBIO were ever to be dissolved or cease to exist, FAP’s capital (which is expected to eventually grow to US $250 million) would have to be transferred to another OSCID having similar purposes (according to FUNBIO’s statutes and the OSCID law), or else returned to the donors (according to the Donor Grant Agreements). This is an inconsistency that needs to be resolved.

Description of FAP

FUNBIO – The Trust Fund Administrator

214. FAP was established in June 2004, not as a separate legal entity, but rather as segregated operating and investment accounts of the Brazilian Biodiversity Fund (FUNBIO), a non-profit organization founded in October 1995 for the purpose of contributing to the conservation and sustainable use of Brazilian biological diversity.

215. FUNBIO was initially funded with a Global Environmental Facility Pilot Phase grant through the World Bank, and is itself considered to be an environmental trust fund. FUNBIO’s activities involve raising and distributing resources for conservation and sustainable use of biodiversity. Through its various activities, FUNBIO stimulates the development of environmentally and economically sustainable projects in many parts of Brazil.
216. FUNBIO is directed by a Governing Council composed of representatives who fill prominent positions in various segments of society including NGOs, corporations, universities, and Government. This council functions by means of plenary meetings, an Executive Committee, Technical Committees, and an Executive Secretariat made up of full-time professionals from different specialized areas. FAP accounts are supervised by FUNBIO’s Governing Council with a separate Technical Commission responsible for FAP’s day-to-day management.

217. FUNBIO currently manages both FAP and the ARPA direct implementation costs. Under the direct implementation costs, FUNBIO manages donor funds, such as provided by the Moore Foundation, and procures the goods and services needed to implement ARPA Protected Areas through investments in technical studies, planning, capacity building, protection activities, equipment and infrastructure (US$ 10.75 million spent in 2006, US$ 11.67 million spent in 2007).

218. Separate from its obligations to ARPA, FUNBIO also manages a diverse project portfolio with a variety of partners in Brazil. Examples include the private sector component of the Global Environment Facility-supported National Biodiversity Mainstreaming and Institutional Consolidation Project, a US$ 22 million program jointly managed with the Brazilian Environmental Ministry. FUNBIO designed a financial mechanism for the Rio de Janeiro state Government to support the state system of Protected Areas that currently has US$ 90 million and works with the Brazilian Environmental Ministry on the Cerrado Policy and Biome Monitoring Project (US$ 4 million), Global Pollinators Project (US$ 3.5 million), the Atlantic Forest Conservation Fund (US$ 9 million) and a recently established debt swap for tropical forest with the US Government under the Tropical Forest Conservation Act (US$ 20 million). FUNBIO also manages US$ 5 million in other project grants from donors including the Gordon and Betty Moore Foundation, Conservation International and Petrobras, among others.

Trust Fund Overview

219. FAP is designed to achieve two principal objectives: 1.) preserve its endowment capital, and 2.) generate investment income sufficient to cover the recurring costs of maintaining the Protected Areas under the ARPA Program.

220. FAP investment income will be used to cover recurrent costs for Strict Nature Protection Areas and Sustainable Use Reserves that meet specific eligibility criteria and reflect the comprehensive set of management standards adopted by the ARPA Program. Each Protected Area must meet these criteria prior to receiving financial resources from the Trust Fund.

221. Based on ARPA’s original financial design, it is estimated that the endowment’s investment income will cover average annual recurrent costs totaling US$ 165,000 per strict protection PA and US$ 50,000 per sustainable use reserve. These values account for approximately 75 percent of the average annual recurrent costs of each Protected Area. The estimated value of the Government of Brazil’s contribution to recurrent costs, primarily staffing costs, for each ARPA Protected Area will be approximately US$ 50,000 annually.
for strict protection PA and US$ 25,000 annually for sustainable use areas. (The lower cost to manage sustainable use areas reflects the greater level of involvement and responsibility assumed by local communities.) Using these assumptions on the projected size of the ARPA system of PAs and the estimated cost per area, FAP needs to build an endowment of approximately US$ 250 million. Currently, FAP is in the capitalization Phase with the first disbursements to Protected Areas from the Fund scheduled to begin in 2012.

222. It is important to note that the values cited above are based on average Protected Area sizes and operating cost estimates as determined by the current long term financial projection.

**Eligibility Criteria**

223. The determination of PAs eligible for funding from FAP’s endowment income is made according to the following criteria defined by the ARPA Program:

224. For strict protection:
   - Area limits are well defined and demarcated;
   - Land tenure study has been conducted;
   - Adequate infrastructure and equipment needs have been met;
   - Government staff assigned and present;
   - Basic protection plans are prepared and functioning;
   - Management plan and annual operational plan is being implemented;
   - Local management council has been constituted and is functioning, including participating in the design of the area management plan;
   - Area has been accredited in the National Registry of Protected Areas;
   - Area receives an annual allocation of resources from the Government budget; and
   - At least 90 percent of the area’s natural environment are well conserved.

225. For sustainable use areas:
   - Sustainable use area is located in a priority zone for conservation;
   - Management plan and annual operational plan has been prepared and approved;
   - Management council has been constituted and is functioning;
   - Current registry of inhabitants exists;
   - A community association and its commissions on environmental protection, health, and education has been constituted;
   - Government staff assigned and present or a formal co-management agreement has been established in which the community association staffs in the area;
   - Area has been registered in the National Registry of Protected Areas; and,
   - At least 90 percent of the area’s natural environment its well-conserved.

226. Upon meeting the criteria cited above, and subject to an annual review and approval process the Protected Areas can begin to draw on FAP to help meet their annual recurrent operating costs, estimated at US$ 165,000 per strict nature protection areas and US$ 50,000 per sustainable use area. Annual recurrent operating costs are defined by ARPA as:
• Protection and enforcement costs such as fuel, firebreaks, and maintenance of equipment;
• Administrative and maintenance activities not covered by the Government’s budget allocation;
• Training activities; and
• Operational support to Protected Area Management Councils.

227. The Government of Brazil has agreed to contribute the following recurring costs for each eligible Protected Area, estimated at US$ 50,000 annually for strict Protected Areas and US$ 25,000 annually for sustainable use areas, going to:

• Salaries and benefits of the director and other public employees working in each Protected Area; and
• Basic services such as public utilities (i.e. electricity and communications).

Operating Budgets and Disbursements

228. As a requirement to accessing ARPA funds, an Annual Operating Plan for each eligible Protected Area will be developed each year jointly by FUNBIO and the ICMBio, Brazil’s federal agency responsible for managing Protected Areas. The Annual Operating Plans are subject to review by the ARPA Coordinating Unit in the Ministry of Environment, and subsequently require the approval of the ARPA Program Committee, which is composed of Government academic, donor, and civil society representatives. The Annual Operating Plan determines the amount of funding each eligible Protected Area is to be allotted from direct donor funds and from FAP.

229. Transfers from FAP investment accounts to the FUNBIO operating accounts for expenditure will be in accordance with the Annual Operating Plans and with the rules of disbursement and utilization of funds adopted by the ARPA Program. New eligible Protected Areas may only begin to receive funds from FAP when the investment earnings are sufficient to cover the additional costs.

Project Monitoring and Evaluation

230. The combined efforts of the ARPA partnership have resulted in the development and implementation of several state-of-the-art tools to guide the project management cycle and carry out rigorous project monitoring and evaluation. ARPA’s Program monitoring and evaluation system will provide the base of information needed to set priorities and make informed decisions regarding the use and application of allocations from the Trust Fund.

231. The ARPA Conservation and Investment Strategy. This Strategy is based on updated studies of biological representation, gaps, and threats, and a financial model utilizing up-to-date cost estimates for key management activities. This strategy guides the development of the annual operating plans and budgets.
232. The World Bank/WWF Tracking Tool. This evaluation guide is a best practice tool for assessing management effectiveness of Protected Areas, and is applied on an annual basis to monitor progress in all ARPA PAs.

233. The ARPA Phase 1 internet-based financial management system (Cerebro) is a full service financial management system created by FUNBIO that enables all annual budget planning, review and approval, execution, and monitoring to occur in a secure, efficient, and transparent online environment. In the second Phase an updated version, Cerebro II, will resolve minor problems encountered in the first Phase.

234. The ARPA Coordination and Management System (SisARPA) is an internet-based information system that integrates the information described above and facilitates project review and decision making.

235. In addition, ARPA Phase 1 was subject to technical audits performed by an independent scientific panel to ensure Protected Area selection criteria were consistently followed, as well as annual evaluation missions conducted by the principal donor agencies. ARPA Phase 2 will have the same evaluation/audit mechanism.

Financial Operations

236. FUNBIO is the exclusive manager of FAP. As such, FUNBIO maintains accounting control of all trust fund receipts and disbursements in accordance with rules established by the donors and employing financial management and procurement practices prescribed by the World Bank.

237. To better manage foreign exchange risk, FUNBIO may establish foreign currency accounts and invest in foreign currency denominated securities. FUNBIO may also maintain the grant proceeds of donors. For example, grants to the trust fund from the GEF, the German Government, and the WWF are recorded in separate accounts.

238. Both the ARPA Program and FAP are audited on an annual basis by an internationally recognized auditor appointed by FUNBIO’s Governing Council (previously audited by KPMG and by Ernst & Young). These audit reports are available within six months of the end of the fiscal year. Special audits may also be requested by the FUNBIO Governing Council, the Executive Secretary of FUNBIO, or the ARPA Program Committee.

Procurement

239. FUNBIO’s most important role with respect to ARPA consists of reviewing, coordinating, approving and implementing requests by ARPA Protected Area managers to procure eligible goods and services that are needed for the establishment and operation of those Protected Areas. Carrying out this procurement role for many large new Protected Areas in remote parts of six different states of the Amazon (stretching across an area bigger than the whole continent of Europe) is an extremely challenging and complex task.
240. FUNBIO has carried out a major internal effort called “Melhor ARPA” to further improve FUNBIO’s performance with respect to procurement. The head of FUNBIO’s Project Management Unit commented: “We think we are still in 75% of the learning curve and we have a big space for quality improvements and costs reductions.” During the first implementation Phase of ARPA, none of FUNBIO’s procurement of goods and services for ARPA has involved money that comes from FAP. However, during Phase 2, the income from investing FAP’s endowment is expected to become an increasingly important source of money for procurement of goods and services for ARPA Protected Areas.

Asset Management

241. FUNBIO selects, monitors, and evaluates FAP’s Asset Manager through its Asset Manager Committee, which is responsible for its existing Audit and Finance Commission. The Sub-committee supervises the Asset Manager and ensures compliance with FAP’s Investment Policy, which establishes the limits and types of investments the fund may make and the implementation of the investment strategies approved by FUNBIO. The Asset Management committee members are investment specialists, Governing Council members, donors, and other appropriate experts. The activities of the Asset Manager are reviewed annually by an independent auditor.

242. After an open selection process, Pragma Patrimonio was selected as asset manager (a role previously fulfilled by AIG Private Bank / Unibanco) by the FUNBIO Governing Council in accordance with World Bank guidelines, to assume primary responsibility for developing an investment strategy for the Trust Fund endowment and for executing that strategy. The criteria for selection included ability, experience, reputation, security, investment, philosophy, and physical presence of the Asset Manager in Brazil.

243. Future disbursements from FAP will be in accordance with the specific directives of each donor. Performance ‘benchmarks’ and targets are established as part of the Investment Strategy.
Annex 8: Economic and Financial Analysis

Introduction

244. Avoiding deforestation in the Amazon is important for carbon emission reductions and for biodiversity conservation. The ability of the livestock sector to usurp public land continues to be a strong incentive for deforestation. The returns of livestock ranching may be low per hectare, but the conversion of illegally seized public forested land offers high gains from land value appreciation and drives deforestation. Ambiguous settlement policies, undefined and insecure land tenure, and the Government's limited enforcement capacity in remote areas provide further incentives for this environmentally damaging pattern of land occupation.43 While the Federal Government has made progress with enforcement actions against deforestation in the Amazon, it needs to accelerate the demarcation of public land as titled to the federal and state Governments. In this context, the creation and implementation of Protected Areas in Brazil has been used as an important tool to define the long-term use of large tracts of land in the Amazon region.

245. Protected Areas are an important deterrent of deforestation, especially when they are created in areas of frontier expansion. While deforestation has been recorded inside legally declared PAs, the rates are far lower than those seen in forested areas outside of PAs. This tends to support the hypothesis that PAs have a significant effect in reducing deforestation, which is in line with research carried out by a number of different authors. For example, Ferreira and Almeida (2005)44 have demonstrated that the rate of deforestation outside PAs was about 10 times higher than inside PAs in Mato Grosso and Rondônia, and about 20 times higher in the State of Pará. Also, Soares-Filho et al. (2010) estimate that the recent expansion of PAs in the Brazilian Amazon reduced 37% of the region’s deforestation between 2004 and 2006 without leakage45. These results are consistent with a more comprehensive study carried out by Nelson and Chomitz (Protected Area Effectiveness in Reducing Tropical Deforestation, 2009) covering the entire tropical forest biome. Using forest fires as a proxy for deforestation, the authors concluded that PAs have significantly lower incidence of forest fires than similar areas outside of PAs. As expected, these differences between incidence of forest fires inside and outside PAs decrease as a function of the remoteness of the areas, as well as the deforestation pressure.

The impact of ARPA Phase 1 in the creation of Protected Areas

246. As stated in the project’s background section, the Government of Brazil, particularly after 1997, has made substantial progress on the expansion of the system of PAs. However, this expansion is often constrained by a lack of financial resources. ARPA has been very

successful in leveraging resources and the resources invested have a significant impact on the PA creation rate. Following the creation trend before the ARPA program (from 1980 to 2003), today Brazil would have about 37 million hectares of PAs in the Brazilian Amazon. With ARPA, the current area is 59.61 million hectares - an increase of 63%.

247. International concern about deforestation in the Brazilian Amazon reflects the fact that its environmental benefits - both from using natural resources and the existence value of the biome’s extensive flora and fauna - are truly valued on a global scale. As well as being beneficial in the fight for the biodiversity conservation and against climate change, the emergence of carbon markets and credit payment programs in recent years have created the opportunity for the Amazon forest to be an important source of revenue for the region.

248. According to Soares-Filho et al. (2008), the creation of 13 PAs in the Amazon from 2003 to 2007 are predicted to offset emissions equivalent to 430 million tons of carbon by 2050.\(^{46}\) Considering the value of US$ 5 per ton of carbon\(^{47}\) this would account for US$ 2.15 billion dollars by 2050 or about US$ 54 million dollars per year. Considering that the ARPA Phase 1 project’s total cost was US$ 84.5 million, the IRR for this investment is 22%.

249. Though the number of public PAs and the area covered by them have increased at an impressive rate over the past ten years, these areas remain to be delineated with precise geo-referencing for their consolidation. Completing this process for PAs will assure greater protection of their integrity. Except for ARPA, none of the Government-funded programs include long-term financing mechanisms for PAs. Also, the ARPA focus on staffing and consolidation of PAs should be highlighted. Currently 42 PAs in Amazon receive financial support from ARPA, corresponding to 33% of the PAs and 63% of the total Protected Area. Without the project, already existing financial instruments such as tourism entrance fees and environmental compensation might develop in a few PAs, but additional income generating activities (based on international experiences) would probably not take place.

250. In summary, the creation and consolidation of PAs provide tangible goals and outputs that will help to conserve globally significant biodiversity and mitigate climate change within forest areas. Also, the improvement of mechanisms to ensure the long-term sustainability of PAs (such as FAP) will provide the Brazilian Government with the opportunity and means to actively involve multiple partners in common conservation goals. 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 PA management by the state and municipal Governments, with a view for long-term PA accountability at the local level;

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\(^{46}\) Soares-Filho, B.S, et al. 2008. “Reducing carbon emissions from deforestation: the role of ARPA’s Protected Areas in the Brazilian Amazon” UFMG, IPAM, WWF.

\(^{47}\)For this analysis we opted for adopting a very conservative value due to the recent oscillations on the Carbon Credits Market.
• 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 enable the progressive decrease of GEF support;
• An integrated approach for PA management that responds to social, economic, and political realities and a regional long-term vision of the system of PAs in the Amazon;
• Definition of long-term management needs, management plans, and agreements to share PA management responsibility with private sector organizations; and
• Pilot projects based on the sustainable use of biodiversity to provide economic incentives for conservation.

251. While difficult to value, these incremental benefits are the key to ensuring the sustainability of conservation efforts and tangible benefits over the long term.

**Incremental Benefits of the GEF Alternative**

252. The following matrix summarizes the incremental costs and benefits, detailing the incremental costs for achieving global environmental benefits. The difference between the cost of the Baseline Scenario (US$ 25 million) and the cost of the GEF Alternative (US$ 85.9 million) is estimated at US$ 60.9 million. The Baseline Scenario would generate limited short-term gains in biodiversity conservation, while the GEF Alternative would constitute a concerted effort to mainstream conservation actions and resources for PAs in the Amazon region, focusing on long-term social and financial sustainability.

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>US$ Million</th>
<th>Domestic Benefit</th>
<th>Global Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Component 1: Creation of new Protected Areas</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>US$ 2.0 million</td>
<td>Consultation and planning is likely to be limited by scarce resources restraining the creation of PAs.</td>
<td>Global benefit in the long term, yet the creation of the Protected Areas is not guaranteed.</td>
</tr>
<tr>
<td>With GEF Alternative</td>
<td>US$ 3.5 million</td>
<td>Support the creation of 13.5 million hectares of new PAs in the Amazonian biome over a four-year period.</td>
<td>Protection of globally significant biodiversity. Mitigate climate change within forest areas.</td>
</tr>
<tr>
<td>Incremental</td>
<td>US$ 1.5 million</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Component 2: Consolidation of Protected Areas</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>US$ 23 million</td>
<td>Limited resources for PA consolidation.</td>
<td>The consolidation of PAs would be achieved at a slow rate and over a considerably long period of time.</td>
</tr>
<tr>
<td>With GEF Alternative</td>
<td>US$ 67 million</td>
<td>Support the consolidation of 32 million hectares involving staffing, the creation of management councils, elaboration of management plans, provision of basic equipment for PA management and enforcement, land demarcation, infrastructure, capacity building for staff, and involvement of local communities</td>
<td>Streamlined protection of globally important biodiversity.</td>
</tr>
</tbody>
</table>
**Component 3: Long-term sustainability of Protected Areas**

<table>
<thead>
<tr>
<th>Baseline</th>
<th>US$ 0.0</th>
<th>Limited and uncertain resources for PA maintenance and investments.</th>
<th>Reduced impact of PAs on the Amazon Biome conservation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>With GEF Alternative</td>
<td>US$ 1.9 million</td>
<td>Improve the financial sustainability of the PAs created and consolidated through: (i) an increase in 150% of the endowment fund (FAP) resources; (ii) development of mechanisms to generate new resources for FAP and the PAs; and, (iii) development of effective and transparent mechanisms for the disbursement of FAP resources.</td>
<td>Establishment of a solid foundation for the effective financial sustainability and management of PAs.</td>
</tr>
</tbody>
</table>

**Component 4: Project coordination, monitoring, management and communications**

<table>
<thead>
<tr>
<th>Baseline</th>
<th>US$ 0.5 million</th>
<th>Limited resources for PA monitoring.</th>
<th>PA consolidation and sustainability indicators do not tracked in a satisfactory manner.</th>
</tr>
</thead>
<tbody>
<tr>
<td>With GEF Alternative</td>
<td>US$ 13.5 million</td>
<td>Efficient execution of the project.</td>
<td></td>
</tr>
<tr>
<td><strong>Incremental</strong></td>
<td><strong>US$ 13.5 million</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Baseline: US$ 25.5 million**

**Total GEF Alternative: US$ 85.9 million**

**Total Incremental Costs: US$ 60.9 million, of which US$15.9 million is being requested from the GEF**
Annex 9: List of Protected Areas Supported by ARPA

<table>
<thead>
<tr>
<th>NAME</th>
<th>AREA (ha)</th>
<th>CATEGORY</th>
<th>STATE (location)</th>
<th>Ownership</th>
<th>YEAR CREATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESEC Juami Japurá</td>
<td>572,650</td>
<td>Ecological Station</td>
<td>Amazonas</td>
<td>Federal</td>
<td>1985</td>
</tr>
<tr>
<td>ESEC Maracá</td>
<td>101,312</td>
<td>Ecological Station</td>
<td>Roraima</td>
<td>Federal</td>
<td>1981</td>
</tr>
<tr>
<td>ESEC Terra do Meio</td>
<td>3,373,111</td>
<td>Ecological Station</td>
<td>Pará</td>
<td>Federal</td>
<td>2005</td>
</tr>
<tr>
<td>PARNA Juruena</td>
<td>1,957,000</td>
<td>National Park</td>
<td>Mato Grosso &amp; Amazonas</td>
<td>Federal</td>
<td>2006</td>
</tr>
<tr>
<td>PARNA Montanhas do Tumucumaque</td>
<td>3,867,000</td>
<td>National Park</td>
<td>Amapá</td>
<td>Federal</td>
<td>2002</td>
</tr>
<tr>
<td>PARNA Rio Novo</td>
<td>537,757</td>
<td>National Park</td>
<td>Pará</td>
<td>Federal</td>
<td>2006</td>
</tr>
<tr>
<td>PARNA Taú</td>
<td>2,272,000</td>
<td>National Park</td>
<td>Amazonas</td>
<td>Federal</td>
<td>1980</td>
</tr>
<tr>
<td>PARNA Cabo Orange</td>
<td>619,000</td>
<td>National Park</td>
<td>Amapá</td>
<td>Federal</td>
<td>1980</td>
</tr>
<tr>
<td>PARNA Campos Amazônicos</td>
<td>873,570</td>
<td>National Park</td>
<td>Amazonas, Rondônia &amp; Mato Grosso</td>
<td>Federal</td>
<td>2006</td>
</tr>
<tr>
<td>PARNA Serra do Pardo</td>
<td>445,392</td>
<td>National Park</td>
<td>Pará</td>
<td>Federal</td>
<td>2005</td>
</tr>
<tr>
<td>PARNA Viruá</td>
<td>227,011</td>
<td>National Park</td>
<td>Roraima</td>
<td>Federal</td>
<td>1998</td>
</tr>
<tr>
<td>PARNA Anavilhanas</td>
<td>350,018</td>
<td>National Park</td>
<td>Amazonas</td>
<td>Federal</td>
<td>1981</td>
</tr>
<tr>
<td>PARNA Serra da Cutia</td>
<td>283,612</td>
<td>National Park</td>
<td>Rondônia</td>
<td>Federal</td>
<td>2001</td>
</tr>
<tr>
<td>PARNA Serra do Divisor</td>
<td>842,736</td>
<td>National Park</td>
<td>Acre</td>
<td>Federal</td>
<td>1989</td>
</tr>
<tr>
<td>RESEX Alto Tarauacá</td>
<td>151,200</td>
<td>Extractive Reserve</td>
<td>Acre</td>
<td>Federal</td>
<td>2000</td>
</tr>
<tr>
<td>RESEX Arapixi</td>
<td>133,637</td>
<td>Extractive Reserve</td>
<td>Amazonas</td>
<td>Federal</td>
<td>2006</td>
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<tr>
<td>RESEX Arioca-Puranã</td>
<td>83,445</td>
<td>Extractive Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>2005</td>
</tr>
<tr>
<td>RESEX Auati-Paraná</td>
<td>146,951</td>
<td>Extractive Reserve</td>
<td>Amazonas</td>
<td>Federal</td>
<td>2001</td>
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<tr>
<td>RESEX Baixo Juruá</td>
<td>187,982</td>
<td>Extractive Reserve</td>
<td>Amazonas</td>
<td>Federal</td>
<td>2002</td>
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<tr>
<td>RESEX Ipaú-Anilzinho</td>
<td>55,816</td>
<td>Extractive Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>2005</td>
</tr>
<tr>
<td>RESEX Ituxi</td>
<td>766,940</td>
<td>Extractive Reserve</td>
<td>Amazonas</td>
<td>Federal</td>
<td>2008</td>
</tr>
<tr>
<td>RESEX Mapuá</td>
<td>94,464</td>
<td>Extractive Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>2005</td>
</tr>
<tr>
<td>RESEX Médio Purus</td>
<td>604,209</td>
<td>Extractive Reserve</td>
<td>Amazonas</td>
<td>Federal</td>
<td>2008</td>
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<tr>
<td>RESEX Renascer</td>
<td>211,741</td>
<td>Extractive Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>2009</td>
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<tr>
<td>RESEX Barreiro das Antas</td>
<td>107,234</td>
<td>Extractive Reserve</td>
<td>Rondônia</td>
<td>Federal</td>
<td>2001</td>
</tr>
<tr>
<td>RESEX Lago do Capanã Grande</td>
<td>304,146</td>
<td>Extractive Reserve</td>
<td>Amazonas</td>
<td>Federal</td>
<td>2004</td>
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<tr>
<td>RESEX Maracanã</td>
<td>30,019</td>
<td>Extractive Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>2002</td>
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<tr>
<td>RESEX Rio Cautário</td>
<td>73,817</td>
<td>Extractive Reserve</td>
<td>Rondônia</td>
<td>Federal</td>
<td>2001</td>
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<tr>
<td>RESEX Rio Iriri</td>
<td>398,938</td>
<td>Extractive Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>2006</td>
</tr>
<tr>
<td>RESEX Rio Unini</td>
<td>833,352</td>
<td>Extractive Reserve</td>
<td>Amazonas</td>
<td>Federal</td>
<td>2006</td>
</tr>
<tr>
<td>RESEX Verde para Sempre</td>
<td>1,288,717</td>
<td>Extractive Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>2004</td>
</tr>
<tr>
<td>RESEX Cazumbá-Iracema</td>
<td>750,795</td>
<td>Extractive Reserve</td>
<td>Acre</td>
<td>Federal</td>
<td>2002</td>
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<tr>
<td>RESEX Riozinho do Anfrísio</td>
<td>736,341</td>
<td>Extractive Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>2004</td>
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<tr>
<td>RESEX Rio Jutai</td>
<td>275,533</td>
<td>Extractive Reserve</td>
<td>Amazonas</td>
<td>Federal</td>
<td>2002</td>
</tr>
<tr>
<td>RESEX Rio Xingu</td>
<td>303,841</td>
<td>Extractive Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>2008</td>
</tr>
<tr>
<td>RESEX Riozinho da Liberdade</td>
<td>325,603</td>
<td>Extractive Reserve</td>
<td>Acre</td>
<td>Federal</td>
<td>2005</td>
</tr>
<tr>
<td>RESEX Terra Grande-Pracuúba</td>
<td>194,695</td>
<td>Extractive Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>2006</td>
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<tr>
<td>REBIO Jarú</td>
<td>328,150</td>
<td>Biological Reserve</td>
<td>Rondônia</td>
<td>Federal</td>
<td>1979/ extended in 2006</td>
</tr>
<tr>
<td>REBIO Rio Trombetas</td>
<td>385,000</td>
<td>Biological Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>1979</td>
</tr>
<tr>
<td>Name</td>
<td>Area</td>
<td>Type</td>
<td>State</td>
<td>Government</td>
<td>Year</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>---------</td>
<td>-------------------------------------------</td>
<td>-------------</td>
<td>------------</td>
<td>------</td>
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<tr>
<td>REBIO Tapirapé</td>
<td>103,000</td>
<td>Biological Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>1989</td>
</tr>
<tr>
<td>REBIO Uatumã</td>
<td>940,358</td>
<td>Biological Reserve</td>
<td>Amazonas</td>
<td>Federal</td>
<td>2002</td>
</tr>
<tr>
<td>REBIO Lago Piratuba</td>
<td>357,000</td>
<td>Biological Reserve</td>
<td>Amapá</td>
<td>Federal</td>
<td>1980</td>
</tr>
<tr>
<td>RDS Itatupá-Baquiá</td>
<td>64,735</td>
<td>Sustainable Development Reserve</td>
<td>Pará</td>
<td>Federal</td>
<td>2005</td>
</tr>
<tr>
<td>Resex do Guariba/Mosaico Apuí</td>
<td>150,465</td>
<td>Extractive Reserve</td>
<td>Amazonas</td>
<td>State</td>
<td>2005</td>
</tr>
<tr>
<td>PE Guariba/Mosaico Apuí</td>
<td>72,296</td>
<td>State Park</td>
<td>Amazonas</td>
<td>State</td>
<td>2005</td>
</tr>
<tr>
<td>RDS do Aripuanã/Mosaico Apuí</td>
<td>224,291</td>
<td>Sustainable Development Reserve</td>
<td>Amazonas</td>
<td>State</td>
<td>2005</td>
</tr>
<tr>
<td>PE do Sucunduri/Mosaico Apuí</td>
<td>808,312</td>
<td>State Park</td>
<td>Amazonas</td>
<td>State</td>
<td>2005</td>
</tr>
<tr>
<td>RDS Bararati/ Mosaico Apuí</td>
<td>113606</td>
<td>Sustainable Development Reserve</td>
<td>Amazonas</td>
<td>State</td>
<td>2005</td>
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<tr>
<td>RDS Piagaçú-Purus</td>
<td>1,005,280</td>
<td>Sustainable Development Reserve</td>
<td>Amazonas</td>
<td>State</td>
<td>2003</td>
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<tr>
<td>RDS Rio Amapá</td>
<td>214,133</td>
<td>Sustainable Development Reserve</td>
<td>Amazonas</td>
<td>State</td>
<td>2005</td>
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<td>RESEX Rio Gregório</td>
<td>477,042</td>
<td>Extractive Reserve</td>
<td>Amazonas</td>
<td>State</td>
<td>2007</td>
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<tr>
<td>RDS Uacari</td>
<td>623,934</td>
<td>Sustainable Development Reserve</td>
<td>Amazonas</td>
<td>State</td>
<td>2005</td>
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<tr>
<td>PE Rio Negro Setor Norte</td>
<td>148,634</td>
<td>State Park</td>
<td>Amazonas</td>
<td>State</td>
<td>2001</td>
</tr>
<tr>
<td>RESEX Catuá-Ipixuna</td>
<td>215,416</td>
<td>Extractive Reserve</td>
<td>Amazonas</td>
<td>State</td>
<td>2003</td>
</tr>
<tr>
<td>PE Xingu</td>
<td>95,024</td>
<td>State Park</td>
<td>Mato Grosso</td>
<td>State</td>
<td>2001/</td>
</tr>
<tr>
<td>PE Igarapés do Juruena</td>
<td>223,888</td>
<td>State Park</td>
<td>Mato Grosso</td>
<td>State</td>
<td>2002</td>
</tr>
<tr>
<td>ESEC Rio Ronuro</td>
<td>102,671</td>
<td>Ecological Station</td>
<td>Mato Grosso</td>
<td>State</td>
<td>1998</td>
</tr>
<tr>
<td>PE Cristalino I e II</td>
<td>59,010</td>
<td>State Park</td>
<td>Mato Grosso</td>
<td>State</td>
<td>2000</td>
</tr>
<tr>
<td>PE Corumbiara</td>
<td>430,082</td>
<td>State Park</td>
<td>Rondônia</td>
<td>State</td>
<td>1996</td>
</tr>
<tr>
<td>ESEC Antônio Mujica Nava / Serra dos Três Irmãos</td>
<td>117,928</td>
<td>Ecological Station</td>
<td>Rondônia</td>
<td>State</td>
<td>1996</td>
</tr>
<tr>
<td>PE Guajarâ-Mirim</td>
<td>203,178</td>
<td>State Park</td>
<td>Rondônia</td>
<td>State</td>
<td>1996</td>
</tr>
<tr>
<td>PE Cantão</td>
<td>100,413</td>
<td>State Park</td>
<td>Tocantins</td>
<td>State</td>
<td>2002</td>
</tr>
<tr>
<td>PE Chandless</td>
<td>693,975</td>
<td>State Park</td>
<td>Acre</td>
<td>State</td>
<td>2004</td>
</tr>
</tbody>
</table>
Annex 10: MAP

Map cleared by Jeffrey N. Lecksell (Cartographer, GSDPM) on January 25, 2012.