Document of
The World Bank

Report No: 36542

IMPLEMENTATION COMPLETION REPORT
(TF-28309 TF-28659)

ON A

GLOBAL ENVIRONMENT FACILITY GRANT

IN THE AMOUNT OF US$10 MILLION

TO FEDERATIVE REPUBLIC OF

BRAZIL

FOR A

NATIONAL BIODIVERSITY PROJECT - PROBIO

June 21, 2006

CURRENCY EQUIVALENTS

(Exchange Rate Effective)

Currency Unit = Real (R$)
R$ 1.00 = US$ $ 1.05
US$ 1.00 = R$ 0.95
Rate at Completion US$ 1.00 = R$ 0.46

FISCAL YEAR
January 1 December 31

ABBREVIATIONS AND ACRONYMS

BDT	Base de Dados Tropical (Tropical Data Base)
BIN21	Biodiversity Information Network
CAS	Country Assistance Strategy
CBD	Convention on Biological Diversity
CNPq	Conselho Nacional de Desenvolvimento Científico e Tecnológico (National Council for Scientific and Technological Development)
CONABIO	Comisão Nacional daa Biodiversidade (National Comission for Biodiversity)
EMBRAPA	Empresa Brasileira de Pesquisa Agropecuária (Brazilian Agricultural Research Agency)
FNMA	Fundo Nacional do Meio Ambiente (National Environment Fund)
FTPT	Fundaçao Tropical de Pesquisa e Tecnologia André Tosello (André Tosello Foundation for Tropical Research and Technology)
FUNBIO	Fundo Brasileiro para a Biodiversidade (Brazilian Biodiversity Fund)
GDP	Gross Domestic Product
GEF	Global Environment Facility
GEF Trust Fund	Global Environment Facility Trust Fund
IABIN	Inter-American Biodiversity Information Network
IADB	Inter-American Development Bank
IBAMA	Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (Brazilian Institute for the Envirornent and Renewable Natural Resources)
ICB	International Competitive Bidding
ICR	Implementation Completion Report
MMA	Ministério do Meio Ambiente, dos Recursos Hídricos e da Amazónia Legal (Ministry of the Environment, Water Resources and the Legal Amazon)
NBF	Not Bank Financed
NCB	National Competitive Bidding
NEP	National Environmental Project (PNMA) (Loan No. 3173-BR)
NGO	Non-Governmental Organization
PROBIO	Projeto de Conservaçao e Utilizaçao Sustentável da Diversidade Biológica Brasileira (National Biodiversity Project)
PRONABIO	Programa Nacional da Diversidade Biológica (National Program for Biological Diversity)
QAG	Quality Assessment Group
RPPN	Reserva Particular do Patrimonio Natural (Private Nature Reserve Program)
UC	Unidade de Conservação (Conservation Unit)

UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme

Vice President:	Pamela Cox
Country Director	John Briscoe
Sector Manager	Abel Mejia
Task Team Leader/Task Manager:	Adriana Moreira

BRAZIL
National Biodiversity Project - PROBIO (GEF)

CONTENTS

Page No.

Project ID: P006210	*Project Name:* National Biodiversity Project - PROBIO (GEF)
Team Leader: Adriana Moreira	*TL Unit:* LCSEN
ICR Type: Core ICR	*Report Date: June 21, 2006*

1. Project Data

Name: National Biodiversity Project - PROBIO (GEF)
L/C/TF Number: TF-28309; TF-28659
Country/Department: BRAZIL
Region: Latin America and the Caribbean Region

Sector/subsector: General agriculture, fishing and forestry sector (81%); Central government administration (19%)
Theme: Biodiversity (P); Participation and civic engagement (P); Environmental policies and institutions (S)

KEY DATES		*Original*	*Revised/Actual*
PCD:	02/15/1991	*Effective:*	12/05/1996	12/05/1996
Appraisal:	03/20/1995	*MTR:*	12/08/1999	12/08/1999
Approval:	04/16/1996	*Closing:*	12/31/2001	12/31/2005

Borrower/Implementing Agency: GOVERNMENT OF BRAZIL/IBAMA; PRIVATE & PUBLIC ENTITIES
Other Partners:

STAFF	Current	At Appraisal
Vice President:	Pamela Cox	David de Ferranti
Country Director:	John Briscoe	Gobind Nankani
Sector Director:	Laura Tuck	Constance Bernard
Team Leader at ICR:	Adriana Moreira	Claudia Sobrevila
ICR Primary Author:	Adriana Moreira; Christine Drew Dragisic; Luis Augusto Ducassi	

2. Principal Performance Ratings

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HL=Highly Likely, L=Likely, UN=Unlikely, HUN=Highly Unlikely, HU=Highly Unsatisfactory, H=High, SU=Substantial, M=Modest, N=Negligible)

Outcome:	S
Sustainability:	HL
Institutional Development Impact:	H
Bank Performance:	S
Borrower Performance:	S

	QAG (if available)	ICR
Quality at Entry:	S	S
Project at Risk at Any Time:	Yes	

3. Assessment of Development Objective and Design, and of Quality at Entry

3.1 Original Objective:

The primary objective of the proposed project was to assist the Government of Brazil to launch a program for the conservation and sustainable use of biodiversity. The project was expected to lead to: a) prioritizing of actions; b) facilitation of partnerships between the public and the private sectors; and c) to better disseminate biodiversity information and knowledge to agriculture, fishing and forestry sectors.

3.2 Revised Objective:

The objective was not revised.

3.3 Original Components:

The project was comprised of the following three components:

Component 1: Biodiversity Assessments and Dissemination (19% of total project costs). This component aimed at promoting assessments at the biome level (the Cerrado Savannas and Pantanal Wetlands, Atlantic Tropical Forest and Southern Grasslands, Coastal and Marine ecosystems, the Caatinga Dryland, and the Amazon Tropical Forests), creating a biodiversity information network, and dissemination of knowledge.

Biome-Level Assessments were achieved through workshops that brought together experts from various scientific areas. They served to gather all available information on biodiversity and conservation status, to critically analyze the information and to identify and prioritize options for conservation and sustainable use of biodiversity. Based on previous lessons learned, maps with biodiversity data were prepared before the actual workshop, conservation priorities were ranked, and the analysis went beyond species distribution to review ecosystems and habitat protection, economic trends, and public policies. For each major biome, priorities were identified and strategies for conservation and resource use developed. NGOs, academic institutions, public entities, and consortia of the above submitted proposals to organize the biome-level assessments and were selected according to established criteria. Each workshop established the parameters for biodiversity monitoring and identified institutions to carry out such monitoring and disseminate the results.

Terms of reference to select the organizers for each biome-level assessment were approved by the Bank and incorporated into the Operational Manual. The activities were divided into three stages: (1) preparation of information base for workshop; (2) workshop event, integration of results, definition of priorities; (3) establishment of a permanent working group in charge of follow-up activities including the periodic review of priorities, development of a priority action plan, and the definition of monitoring and consultation programs. The assessments were held on a staggered basis so that all of them would be completed during the first two years of the project. Workshop results were disseminated in the form of maps and books and through electronic and other media. Participants in each biome-level assessment designated a small number of participants to serve as a liaison and consultative group between the Government and the different constituencies represented to ensure that the recommendations of the assessments were carried out. The results and recommendations of each workshop contributed to the National Strategy for Biodiversity Conservation and Sustainable Use promoted by PRONABIO. They were also used in the preparation of the calls for proposals for new sub-projects.

A Biodiversity Information Network - Brazil was established for the purpose of storing, updating, and linking information generated in the assessments, and for providing an efficient means of communication about biodiversity both nationally and internationally. It was designed to build on existing data in the Tropical Data Base (BDT) and connect BDT and other data bases, including IBAMA-NET, the National Environmental Electronic Network financed by the NEP loan from the Bank, and the National Research Network (RNP). The Biodiversity Information Network - Brazil was intended to be accessible to government, scientific, conservation, and private-sector actors. The Andre Tosello Foundation for Tropical Research and Technology (FTPT) coordinated the implementation of this component. (See section 4 for more information on this point.) FTPT was chosen because of its established leadership in developing Brazil's biodiversity information systems and facilitating its access to such systems worldwide. This private non-profit foundation had played an important role in several international forums sponsored by the United Nations Environment Programme (UNEP) and the Brazilian Government on establishment of the international Biodiversity Information Network (BIN21), which was designed to link information relevant to biodiversity and make it widely available by electronic and other means, in support of the Convention on Biological Diversity and Agenda 21. BIN21, was already functioning prior to the project, had its secretariat at FTPT. The Tropical Data Base node (Brazil) was maintained by FTPT. At project start there were 14 international nodes in the BIN21 network.

Additional Biodiversity Assessments and Dissemination Activities identified by PRONABIO and agreed with the Bank were eligible to be financed to support and update the Biodiversity Strategy and Action Plans, and add new subscribers to the Information Network.

Component 2: Model Biodiversity Sub-Projects (72% of total project costs). This component financed local pilot activities that would: (1) contribute significantly to conservation and sustainable use of biodiversity in a specific region or biome; (2) explore innovative forms of biodiversity protection and management; (3) test a variety of arrangements involving public-sector and non-profit private-sector actors, and a range of conservation goals.

First-Round Model Sub-Projects (18% of total project costs). In 1992, MMA requested proposals from a variety of public, academic, and non-profit conservation organizations in order to identify a pipeline of eligible sub-projects that would be ready to begin implementation upon grant effectiveness. Sub-projects for the first round of funding were chosen on the basis of the degree to which they address high conservation priorities, and the potential for success in achieving stated sub-project goals. Proposed sub-projects were also expected to incorporate the following basic elements into their design: (1) multi-institutional involvement with partners representing government, non-government, and academic research institutions; (2) participation of institutions or collaborating groups with technical, financial, or operational capabilities relevant to biodiversity conservation, whose involvement would represent a broadening of the community of stakeholders in biodiversity conservation; and (3) involvement of organizations with a clear institutional mandate and well-established performance record, which through collaboration with other institutional actors could enhance the relevance of their work to biodiversity conservation. Furthermore, the following criteria were used to prioritize proposals and to make a final selection:

* Potential for replication of project methods and approaches;
* Demonstration value of new techniques and approaches and potential sustainability of results;
* Cost effectiveness and incrementality of project-financed activities and evidence of institutional commitments reflected by counterpart funds, facilities, or in-kind services contributed by the implementers.

MMA evaluated sub-project proposals against these basic elements and criteria, and selected five

sub-projects for first-round funding in 1993. One sub-project was national in scope and four were of local or regional interest:

a. National sub-project: Conservation of Plant Genetic Resources. This sub-project conserved plant genetic resources by developing and implementing a program for the sustainable management of selected wild plant species with high conservation priority value and potential for sustainable economic use.

b. Local sub-projects. (i) Conservation and Restoration of Biodiversity in Gallery Forests of the *Cerrado*. This sub-project assisted in the conservation and restoration of riparian forests threatened by agricultural expansion in the Federal District and adjacent regions of Minas Gerais and Goiás states; (ii) Management of Conservation Units in the Guaragueçaba Region. This sub-project contributed to the conservation of the largest of the Atlantic Forest remnants by expanding conservation units in a unique 310,000-hectare coastal area in eastern Paraná state; (iii) Conservation and Restoration of Atlantic Forest in Tablelands of Linhares. This sub-project developed a technical and scientific model for biodiversity conservation in important remnants of Atlantic Forest in northern Espirito Santo state; (iv) Restoration and Management of the Natural Ecosystems of *Brejos de Altitude*. This sub-project contributed to the conservation of the threatened forest ecosystems of the Eastern Escarpment *(Borborema)* in Pernambuco and Paraiba states.

Second-Round Model Sub-Projects (54% of total project costs). The nature of second-round model sub-projects initially included the following four broad areas: (i) Biodiversity conservation: activities that support long-term biodiversity conservation initiatives; (ii) Sustainable use of Biodiversity: activities that build synergies and strengthen inter-relationship between biodiversity conservation and sustainable use and development practices in main productive sectors of the economy; (iii) Policy Analysis: analytical studies on policies and incentives to support biodiversity conservation and sustainable use; and (iv) Applied research and technology development: research to support increased knowledge and technology development in biodiversity conservation and sustainable use. Requests for second round proposals were prepared for additional model sub-projects that would involve regions, problems, and organizations not included in the first round. These requests were based on national priorities established by the Government and on the priorities set by the biome-level assessments. At negotiations, an agreement was reached that the request for proposals (*editais*) would be submitted to the Bank for review and approval before being submitted to the Coordinating Commission and issued. In order to increase the cost-effectiveness of project activities and to enhance coordination between Projects I and II, the calls were to be issued through FUNBIO, the Brazilian Biodiversity Fund established to carry out Project II. FUNBIO would conduct a technical evaluation of the proposals received against criteria agreed with MMA/PRONABIO. Guidelines for selection were designed to ensure, among other things, that sub-projects would (i) follow good environmental practices, (ii) properly address any sensitive social issues, and (iii) mobilize matching funding from grant recipients. At negotiations, agreement was reached that the technical reviewers' recommendation on the eligibility of sub-projects and the selection of the corresponding implementing entity would be sent to the Bank for review and approval before it was approved by the Coordinating Commission. Recommendations on sub-project selection were be reviewed by FUNBIO and subsequently transmitted to the National Biodiversity Program's (PRONABIO) Coordinating Commission for review and approval. (For information on FUNBIO and PRONABIO's eventual roles, see section 4.) Eligible entities included public institutions, research institutions, NGOs, the private sector, and consortia of the above. Sub-project proposals were expected to average US$500,000 for three years, with maximum funding of US$700,000. The Operational Manual set down procedures for processing and approving proposals, evaluation reviews, the Technical Secretariat, the Administrative Agent, and for implementing, supervising, monitoring, and evaluating sub-projects. At negotiations, agreement was reached that project implementation would be ruled by the Operational Manual. Prior to effectiveness, the final version of the Operational Manual was approved by the Bank.

Component 3: Project Administration (9% of total project costs). The objective of this component was to support the administration and coordination of the project including: support to PRONABIO's Coordinating Commission; supervision of biome-level assessments and the Biodiversity information Network; evaluation and integration of biome-level assessment and workshop results; provision of support in the formulation of a draft Biodiversity Strategy; monitoring and supervision of sub-projects and workshops; monitoring and supervision of financial execution by CNPq; and the dissemination of results for the whole project.

3.4 Revised Components:

No substantive revisions were made to the project components.

3.5 Quality at Entry:

The project's quality at entry is considered **Satisfactory**. Although no official evaluation of quality at entry was done at the time of effectiveness, preparation documents and project design show a project that was well conceived, consulted, and planned. The lack of substantial technical modifications during implementation confirm this rating. The Quality Assessment Group (QAG) 2005 Quality of Supervision Assessment also found quality at entry to be satisfactory. It noted “though the original concept was very ambitious, the project was divided into two separate tasks before Board approval, which has made both initiatives more manageable.”

4. Achievement of Objective and Outputs

4.1 Outcome/achievement of objective:

The overall achievement of the project objective is **Satisfactory**. PROBIO closed on December 31, 2005, and at that time had completely met (and in many cases surpassed) the development objective for the project, as well as disbursed all grant funds. PROBIO is widely recognized as one of the most successful environmental projects in Brazil. The project was fundamental in consolidating the government's biodiversity strategy and reorganizing the related institutional structure. It was critical in promoting the creation of the Secretariat of Biodiversity and Forests and Directorate for Biodiversity, based initially on the Project’s Coordination Unit. These institutions are now responsible for the government’s biodiversity program and catalyzing the discussion of biodiversity issues within the government. PROBIO contributed to the Biodiversity National Policy and National Biodiversity Strategy through political engagement, institutional support, training and strengthening of the managerial and technical staff of the Ministry of the Environment. For the first time, the National Forest Program is incorporating the concept of biodiversity among its guidelines, and the PROBIO results are being used for the creation and establishment of national forests areas. As a testament to the success of PROBIO in shaping the government's biodiversity program, it will continue as a program within MMA after project close.

There were initial delays in project implementation which required two extensions. These were largely due to a reorganization of MMA which complicated project administration, as well as cofinancing difficulties due to IMF-imposed fiscal restraints, election-related spending freezes, and changing government consultant regulations. The mid-term review addressed many of these issues through a restructuring of expenditure categories and guidelines, and of the project technical team. Due to these modifications and easing external constraints, PROBIO accelerated its rhythm after the mid-term review. By the project close at the end of 2005, it had achieved all project objectives, and in many cases surpassed what was expected

at the project start. The fall 2004 QAG report found that supervision has been completely satisfactory.

Consistency with CAS Objectives. The implementation of PROBIO also successfully addressed many of the issues noted in Brazil's successive Country Assistance Strategies (CASs). PROBIO responded directly to priorities identified in the CAS at the time of the project's inception. The June 1995 CAS listed "the management of the country's growth and development consistent with maintaining and improving protection of the environment" as a challenge. It noted the need to support recent improvements in conservation while balancing the environmental agenda with demands for improved standards of living, and of the "generally weak federal, state and local environmental institutions and sparse scientific knowledge that can underpin a strategy for sustainable development." PROBIO managed to strengthen the key government institutions responsible for environmental issues, creating a viable enabling environment which is capable of addressing the integration of environmental concerns and development.

The project also addressed many of the issues included in the 2003-2007 CAS, which stressed the necessity for "a more sustainable Brazil." PROBIO addressed and made significant progress on the protection of forests and biodiversity, the management of natural resources in order to avoid Amazonian deforestation, and the creation of better policies and stronger institutions. The project contributed to the CAS strategic goal 2.2 on sustainable management of land, forests and biodiversity, as well as Strategic Goal 4.2 on more effective public sector management, by assisting the Government in producing the National Biodiversity Law, and establish the Priority Areas adopted by IBAMA and the National Petroleum Agency (ANP), and creating the Directorate of Biodiversity and Secretariat of Biodiversity and Forests. The very fact that the issues are framed so clearly within the CAS, and within the national strategy dialog, shows the impact PROBIO had within Brazil.

Priority Setting for Biodiversity Conservation: The 900 Priority Areas for Biodiversity Conservation in Brazilian biomes, defined under the project through a multidisciplinary, participative process, have been widely adopted throughout the country and in a wide variety of sectors (federal agencies, NGOs, academic institutions and the private sector). IBAMA has incorporated the Priority Areas for Biodiversity Conservation defined by PROBIO as the basis for creation of new protected areas throughout the country. The government has committed to updating the areas every 10 years. The National Petroleum Agency officially adopted the same Priority Areas in its guidelines for licensing oil exploration for the entire country, and two calls for proposals have already been issued under these guidelines. The National Forestry Agency has also adopted these priority areas in their planning processes. PROBIO bolstered the scientific research community in Brazil, playing a role that has been recognized as critical in stimulating research and dissemination of information on Brazilian biodiversity and conservation strategies. Much of this research focused on issues with important impacts on socioeconomic development, including wild relatives of cultivated crops, sustainable harvesting of key products, and medicinal plants.

In setting priorities, PROBIO established a unique process which involved bringing together a diverse group of actors with implications for biodiversity conservation and, backed by robust scientific data and the experts' particular knowledge, building consensus on the priority areas for conservation. The results of these exercises enjoyed immediate and wide acceptance. Similar consensus-building strategies were used by many subprojects at a local level, for example to bring together communities, researchers, and conservation experts to discuss the creation of new protected areas. Today the innovative PROBIO process is widely recognized and is now being replicated throughout Brazil and the world.

Partnerships: PROBIO financed 144 subprojects that involved 284 institutions, creating an extensive network of multisectoral partnerships between academic and private institutions, NGOs, and government. Many of the partnerships established under the subproject program have endured and are generating

synergies. This network has been fundamental in raising the profile of biodiversity within Brazil, contributing directly to the public policy debate, and stimulating the adoption of biodiversity considerations in areas as disparate as oil, timber, private sector development, and protected areas.

In an independent evaluation of subprojects conducted after project close, a full 87% of those interviewed found that the relationships built through subproject execution had been very satisfactory or satisfactory. This was especially true where the subproject had been executed by an NGO, or where communities or municipalities were involved. The same review found that one of the strong points of the program was that it brought together a diverse range of actors, especially local actors, and increased linkages among the primary partners involved in subproject execution. Also highlighted was the project's success in making smaller universities part of strategic national discussions, and in creating linkages between these academic institutions and NGOs. It noted that the project helped build and strengthen a network of institutions organized around working groups, and that this network contributed directly to public policies in the field. Perhaps the partnerships incubated under PROBIO are most obvious in the generation of new projects built on PROBIO lessons and experiences, many of which involve people and institutions which worked on PROBIO, and all of which have a high focus on partnerships between the different sectors.

Dissemination of Knowledge and Capacity Building. One of PROBIO's most important contribution was the extensive dissemination of biodiversity information generated through its activities. The project financed the publication of 37 books, 32 book chapters, and dozens of technical articles, as well as workshops, videos, maps, school materials, brochures, and websites. 29 PhD theses were produced. Information was disseminated to policy makers, technical specialists, academics, students, and a wide range of interested stakeholders. Many books examined cross-cutting issues in formats relevant to policy makers. For example, the book "Fragmentation of Ecosystems" moved beyond a purely scientific discussion of this phenomenon to examine how the government's energy policy has contributed to the fragmentation of ecosystems through dam construction. The materials financed by PROBIO were widely distributed, and are widely cited by researchers and policymakers within and outside of Brazil. Copies of project-financed books were sent to most Brazilian universities, and books published by the Ministry with PROBIO information were distributed to public libraries as well.

PROBIO's role in building links building links between the scientific community and policymakers, and in disseminating policy-relevant information to governmental decision-makers, was one of the project's most important achievements, and led to several important successes in mainstreaming biodiversity into other sectors. Many of PROBIO's products became important parts of policy dialogs, both in Congress and in other governmental institutions. In just two examples, the book "Ecosystem Fragmentation: Causes, effects on Biodiversity, and Public Policy Recommendations" was a key input for discussions on forestry policy and reserve creation, and the biome-level ecosystem analyses were used as background for many discussions for biome strategy, including legislation for the Atlantic Forest.

Throughout Brazil, the project is recognized as having contributed greatly to the development of technical and operational capacity within the biodiversity sector. Today it is extremely common to find high-level positions in NGOs and foundations filled by professionals who worked on PROBIO subprojects; many of the technical staff of these institutions received their practical training through PROBIO-funded work. The independent evaluation of subprojects found that 87% of institutions surveyed felt that PROBIO had a high or substantial influence on the training and capacity of their technical and administrative staff. The same study noted that PROBIO offered an opportunity for many of the subproject executing institutions to increase their status on the national and international biodiversity scene, and in many cases to increase the scope and area of their work. It cited the success of the project in expanding the portfolio of many of the institutions involved in the project, increasing their technical capacity and their experience to interact with,

and execute large projects financed by international donors.

Legislative Impact. The project has also been instrumental in structuring the national legal framework for biodiversity. The technical knowledge generated by PROBIO has served as the basis for the latest environmental legislation related to biodiversity conservation and use in Brazil, contributing to some landmark legislation such as the Protected Areas System Law (2000), the environmental crimes laws (1998 and 1999) and framework legislation on access to genetic resources and biotechnology. PROBIO was also influential in establishing the National Biodiversity Commission (CONABIO); designed first as a short-term coordinating committee for the national biodiversity policy, after PROBIO, CONABIO mandate has been extended to become the implementing agency of Convention on Biological Diversity (CBD) and the national policy.

4.2 Outputs by components:

Component 1. Biodiversity Assessments and Dissemination: Overall component results are rated **Highly Satisfactory.**

Biome-Level Assessments: This subcomponent has been rated **Highly Satisfactory**.

All five workshops (Cerrado/Pantanal, Atlantic Forest/Southern Grasslands, Coastal/Marine, Caatinga Dryland and Amazon Forest) were completed and the results consolidated. The final products of each assessment were published in Portuguese, and additionally an English version of the book "Biodiversity of the Amazon" was completed under this component.

While the completion of these workshops and dissemination of the results would have complied with the project objective, the project went much farther, and had a much greater impact on public policy than was foreseen at the beginning of the project. Based on these assessments, PROBIO established the 900 Priority Areas for Biodiversity Conservation of the key Brazilian biomes. The government of Brazil has assumed the responsibility of updating this information every 10 years in order to continue to inform conservation activities and priorities within the country. Based on PROBIO`s approach, some governmental agencies have adopted the biome as their planning unit (see above for additional details), and several agencies are using the maps for their development planning. Several subsequent projects, including Amazon Region Protected Areas and the proposed Caatinga and Cerrado biodiversity concepts, are based on the results of these biome-level priority-setting exercises as well. Since the completion of the PROBIO workshops, 127 new protected areas totaling nearly 29 million hectares (to date) have been established. All drew from the 900 Priority Areas for Biodiversity Conservation established under this project. Please see Annex 8 for a complete list.

A Biodiversity Information Network – Brazil: This subcomponent has been rated **Moderately Satisfactory** .

The Biodiversity Information Network established under PROBIO was one of the first information networks in the world. Originally, the project envisaged one institution (the Andre Tosello Foundation) as entirely responsible for the management of the Network. This proved to be a suboptimal arrangement, as information was not shared willingly with all relevant actors, as had been planned. The design of the Network was then modified to give much greater control to the Ministry of the Environment, where it became much more successful in collecting and sharing biodiversity information. The database of Andre Tosello Foundation is now under MMA control and is being made available (http://www.mma.gov.br/index.php?ido=conteudo.monta&idEstrutura=72). Despite the setbacks,

the independent evaluation of subprojects noted that one of the strong points of the project was the creation of conditions for the systematization of biodiversity information, allowing it to be organized in a manner which would contribute to environmental planning. The experience under PROBIO, and the important lesson that responsibility for networks should not lie entirely with one institution, have formed the basis for newer biodiversity information initiatives such as the Inter-American Biodiversity Information Network (IABIN) and the proposed Brazilian Virtual Biodiversity Institute.

PROBIO also produced a number of cutting edge publications and other materials which now serve as basic reference and informational material for biodiversity within and outside Brazil. PROBIO has supported 149 data bases (132 in network), 13 homepages and 7 CD-ROMs. MMA assumed responsibility for assuring the public availability of information that was compatible with their system through their own network. The continuity of this service is assured by an action included in the Pluri-annual Plan 2004-2007. Despite these achievements in producing databases and electronic information dissemination devices, as well as the partnerships formed under other parts of the project, a cohesive biodiversity information network did not emerge from project activities. Newer projects are attempting to build upon the base established by PROBIO to create a functioning network.

Additional Biodiversity Assessments and Dissemination Activities: This subcomponent has been rated **Highly Satisfactory**.

PROBIO launched an unprecedented connection among scientists, academics, and policymakers. The workshops and training sessions sponsored by PROBIO were cross-disciplinary, and served as a fora where social and natural scientists worked together with representatives of NGOs, governmental institutions, and the private sector. This fomented a new and innovative approach to a sector that had normally been narrowly-focused and inward looking, and it produced notable and immediate successes.

Among PROBIO's most important contributions has been the extensive dissemination of biodiversity information generated through its activities, in the form of workshops, books, articles, theses, videos, maps, school materials, and brochures. In accordance with the World Bank's recommendations and with PROBIO's objectives, the outcomes of sub projects and activities supported by PROBIO were disseminated as widely as possible, so that biodiversity was incorporated and discussed not only by the scientific community but also by broader Brazilian population. PROBIO's target audience ranged from the scientific community to primary school students. The project financed 37 books, 32 book chapters, 242 technical articles, and, innumerable copies of other materials. Materials have been widely distributed, with copies of project-financed books sent to most Brazilian universities, and books published by the MMA with PROBIO information distributed to public libraries. Web based books and reports are available at www.mma.gov.br under PROBIO. Materials can now be found in most relevant NGOs, government institutions, foundations, and academic institutes, and in the communities involved with subprojects, and are widely cited by other researchers and policymakers. The independent evaluation of selected subprojects found some of the most important results of the project were the elaboration of high quality publications available to the public, opportunities to participate in scientific fora, and environmental awareness initiatives directed at communities, small producers, and other local actors. However, some subproject executors wonder if this dissemination will continue now that the project has closed.

The strategic decision to produce material and information that was relevant to policymakers, by couching the debate in a language understood by politicians, leveraged biodiversity conservation to the level of national policy because the information was properly appropriated by politicians and the media. Books produced by the project were presented and debated in Congress, and project representatives addressed

national and South American legislators. This information dissemination strategy proved extremely effective, and was in large part responsible for the key role PROBIO played in drafting national biodiversity legislation, and in the adoption of the 900 Priority Areas for Biodiversity Conservation throughout all tiers of Brazilian government.

Component 2. Model Biodiversity Sub-Projects: This component has been rated **Satisfactory.**

Several changes to the subproject component were made early in the project in order to better adjust the subprojects to the perceived level of demand and capacity of potential implementing institutions, and to have a broader impact on the country. While the original component description proposed a relatively small number of subprojects averaging $500,000 each, the number of subprojects was greatly increased and the average size decreased, to slightly over $300,000 for the first five subprojects and approximately $110,000 each for the rest. The expected role of FUNBIO and PRONABIO was changed, too, to reflect the final design and capacity of these institutions. FUNBIO did not develop the structure to issue calls for proposals; rather these were issued by the PROBIO team in MMA, at times jointly with the National Environment Fund (FMNA), also within MMA. PRONABIO approved the criteria for subproject selection, including eligible themes, and the calls for proposals emitted, but not the individual subprojects themselves.

These changes ultimately resulted in a successful subproject program. PROBIO financed 144 subprojects in the following categories: biome evaluations, traditional knowledge, effects of global climate change on biodiversity, ecological corridors, wild relatives of cultivated crops, environmental education, identification of conservation institutions in the Center-West, biodiversity information network strategy, fragmentation of ecosystems, support for the creation of protected areas, information on and updating lists of endangered species, monitoring of coral reefs, pollinators, plans for sustainable development of buffer zones surrounding strict protection areas, management of endangered species, information on and management of invasive species, biological inventories in priority areas, economic potential of plants, and mapping fragments of Brazilian biomes. (Two additional proposed subprojects were cancelled, one for delays in implementation and one for problems in obtaining the necessary licenses.)

These subprojects involved 284 institutions, creating an extensive network of partnerships between academic and private institutions, NGOs, and government bodies. Approximately half of the subprojects were executed by foundations. Another quarter were executed by NGOs, while 15% were administered by government agencies and 10% by academic institutions. An independent review conducted after the close of the project found that the subprojects were key in helping PROBIO build partnerships, and that this was especially successful in subprojects executed by NGOs or that directly involved municipalities or communities. However for a few subprojects, relationships with partners, and especially IBAMA, are reported to have posed challenges for technical work. In a full 87% of subprojects studied, the partnerships established were considered very satisfactory or satisfactory.

The large number of subprojects supported and the diversity of their profiles makes a complete list of subproject results nearly impossible. However, certain results of the subproject program do stand out as being of particular importance. Among the areas where PROBIO subprojects have had a major impact are:

- Endangered species: PROBIO supported a thorough review of the endangered species list; the periodic review of this list has now been assumed at the ministerial (MMA) level; a thematic chamber has been created under CONABIO; a partnership between PROBIO and The National Environmental Fund (FNMA) supported management plans for 62 threatened species.
- Invasive species: PROBIO supported a national inventory of exotic invasive species; a thematic chamber is being created under CONABIO; a partnership between PROBIO and FNMA supported plans

for the management of 9 sub-projects.

- Habitat fragmentation: PROBIO's support is used as a basis for the establishment of ecological corridors.
- Pollinators: PROBIO's support is used as a basis to treat pollination as an ecosystem service.
- Buffer zones of protected areas: PROBIO's support changed the manner in which Brazil deals with buffer zones, so that they now give priority to socio-economic benefits for local populations that live in the areas surrounding protected areas.
- Species surveys and inventories: PROBIO's support was influential on the adoption of rapid assessments of biodiversity by MMA (this methodology was used by NGOs only before the project).
- Local policies: In several cases, including subprojects in Rio de Janeiro and Rio Grande do Sul states, subproject results were incorporated successfully into municipal public policy supporting conservation objectives.

Many of the subprojects funded by PROBIO were recognized as contributing critical information to the understanding and management of biodiversity; at least 7 were awarded prizes. In a November 2004 congress, the subproject directors publicly recognized the importance PROBIO has had for their work and for biodiversity in Brazil, noting that without the support of the project many of the advances made in the last 10 years would have been impossible. The independent review conducted after project close found that more than 90% of subprojects sampled were considered to have achieved very satisfactory or satisfactory results in achieving their initial objectives, and 100% were judged to have very satisfactory or satisfactory execution. Of course, not all subprojects had the same objectives, nor did all achieve the same results. The same study found that 53% of the sample subprojects had high or substantial impacts on public policy, while an additional 43% had a moderate impact. Two-thirds of the subprojects sampled contributed to the formation of masters and doctoral students, generating new capacity for the biodiversity sector in Brazil. In terms of the direct impact on biodiversity, the evaluation of project impact was markedly split, with 40% assessing a positive direct impact on the reduction of biodiversity loss through the subproject and 33% seeing little direct impact. Two-thirds of those interviewed believed the subprojects had had a high or substantial impact on the region where they were implemented; the remaining third felt the impact to be moderate. However, 53% also felt that the direct impact on communities related to the subprojects was moderate or low, a sign perhaps of the non-applied nature of many of the subprojects. Knowledge, technologies, and results generated by the subprojects were collected into books, videos, and other forms of dissemination and widely shared. All subprojects sampled agreed that PROBIO created the appropriate conditions to disseminate new technologies and knowledge produced, and 80% the project facilitated the dissemination of subproject results. Perhaps in the most telling results, 83% of responses to questions about the achievement of subproject objectives found that the subprojects had been very satisfactory or satisfactory in meeting their objectives, and 93% of those surveyed felt the perspective of continuing the work begun under PROBIO was high or substantial.

In recognition of the importance of completing the work done under these subprojects, 24 will continue with government funding after project close.

Component 3. Project Administration: The implementation of this component has been rated **Satisfactory**.

Initially the project administration component was less than satisfactory, showing problems in disbursements, inefficiency in administrative procedures, and a lack of effective technical monitoring and evaluation. However, procedural and financing modifications were agreed upon at the Mid-Term Review

and a new project administration team was installed soon after. Project administration quickly improved, as the technical achievements and full disbursement of grant funds show.

A large part of the administrative responsibility of the project involved training subproject executors and other entities responsible for the implementation of project activities. All subproject executors, including both the technical coordinator and financial administrator, received training in subproject administration before beginning work. This training was repeated numerous times during the life of the project upon request of executors who had experienced changes in staffing, both before and after the convention with CNPq was signed. These trainings were key in increasing the operational capacity of subproject executors and the effectiveness of the subprojects themselves, as well as in allowing project modifications to be quickly assumed and employed.

Because of the marked improvement in project administration in the second half of the project, as well as the effective capacity-building program maintained, overall project administration has been rated Satisfactory.

Cross-cutting results

Many of PROBIO's greatest achievements are not limited to each component. PROBIO's innovations were in many cases cross-cutting, and its impacts have been broad. PROBIO was instrumental in developing a number of operational and administrative mechanisms which have been adopted not only by Bank or biodiversity projects, but across all sectors in Brazil. For example, PROBIO was the one of the first projects to use a call for proposals for subprojects and consultancies. This mechanism, which is now widely used, had never been tested before. The project also pioneered innovative strategies for leveraging funds which have influenced how development projects have operated over the last decade. These strategies, developed largely in response to the fiscal constraints which limited project operations for most of the implementation period, allow the project to sidestep financing constraints and continue to achieve project objectives by accessing alternate sources of cofinancing. The idea of a joint call for proposals, for example, arose after opportunities for synergies with the IADB's FNMA projects were identified. This allowed PROBIO to leverage additional funds for its model subprojects, multiplying their scope and impact and allowing their continuation despite the difficult fiscal situation. This strategy has now been replicated numerous times.

As noted earlier, the project also generated information, knowledge, and techniques, which are being used in a number of sectors from oil exploration to forestry. In just one example, several PROBIO subprojects were among the first to incorporate macroeconomic data in their evaluation of pressures and risks for ecosystems; this added substantial value to the dialog on cause and effect and advanced the opportunities for cross-sectoral dialog on issues critical to biodiversity conservation. This same knowledge and information has also become a worldwide model, being presented at numerous international events sponsored by the Convention on Biodiversity and other international organizations, and replicated by various countries around the world.

Many of the NGOs and academic centers which are now considered leaders in the biodiversity field in the country were boosted through PROBIO-funded studies and subprojects, and most leading biodiversity experts in the country have worked on at least one PROBIO initiative. The project opened a space for funding scientific conservation projects outside academia, something which had scarcely existed previously. It is difficult to overstate the importance this large and long-lived project has had for biodiversity in Brazil.

4.3 Net Present Value/Economic rate of return:
N/A

4.4 Financial rate of return:

N/A

4.5 Institutional development impact:

The project's institutional development impact is considered to be **High.**

PROBIO is widely recognized as one of the most successful environmental projects in Brazil. To a large degree, it was responsible for structuring the biodiversity sector in Brazil. The project's project coordination unit (PCU) was transformed into the Secretariat of Biodiversity and Forests and the Directorate for Biodiversity within the Ministry of the Environment. Today, these two bodies are responsible for nearly all biodiversity-related issues within the government. Having a core team responsible specifically for biodiversity has proven extremely important in promoting biodiversity activities, and increasing the sector's visibility in the country. PROBIO contributed to the legal framework for the creation of the National Biodiversity Policy and National Biodiversity Strategy, the two main instruments for promoting biodiversity conservation in Brazil. The project has also been instrumental in structuring the biodiversity legal framework, including the Protected Areas System Law (2000), the environmental crimes law (1998 and 1999) and framework legislation on access to genetic resources and biotechnology.

Furthermore, PROBIO was successful in beginning the process of mainstreaming biodiversity into other governmental sectors, including forestry and petroleum. As a testament to the success of PROBIO in shaping the government's biodiversity program, PROBIO will continue as a governmental program within the Ministry of the Environment after the close of the project, guaranteeing sustainability of the original grant objectives and actions.

5. Major Factors Affecting Implementation and Outcome

5.1 Factors outside the control of government or implementing agency:

PROBIO was approved in 1996 but during the 10-year implementation period, Brazil experienced shifts in monetary policy, devaluations, fiscal crises, evolving environmental and social priorities, and several changes in administrations, with their resulting staff changes at all levels of government. In all cases the project implementation strategy had to be adapted to fit the evolving circumstances in which it was being implemented.

5.2 Factors generally subject to government control:

Several factors constrained the early implementation of the project. Initially the project faced budget constraints due to strict fiscal restrictions imposed under IMF agreement. Although this operation was financed by a GEF grant, the grant proceeds were incorporated into the federal budget and thus subject to the aggregate triggering conditions under which spending was controlled. Related to this, the project encountered funding disruptions related to spending freezes associated with federal elections during election years. A change in government regulations concerning the conditions governing consultant contracts affected the project unit, with the possibility of losing key staff who had been employed under a technical assistance contract executed by UNDP. An amendment to the grant agreement made the use of funds more

flexible, and arrangements were made to incorporate UNDP-employed staff into the Ministry team. These challenges were partially responsible for some of the early delays in project implementation. Finally, the continued reliance on technical and administrative staff with short-term contracts, rather than on long-term civil servants, caused a continual overturn in project staff, resulting in constant training of new staff and potentially less effective implementation than might have been possible with a consistent team. In the last years of the project this situation improved slightly with several nation-wide civil service exams, but the low salaries offered made it difficult for experiences staff to accept equivalent civil service positions, so turnover remained substantial.

5.3 Factors generally subject to implementing agency control:

During the early phase of implementation, MMA experienced changes in internal organization. While these changes (including the establishment of the Secretariat of Biodiversity and Forests and the Directorate of Forests) eventually aided project and the biodiversity sector, the climate of instability slowed project implementation. Administrative and bureaucratic procedures used by the MMA PROBIO team were also found to be unnecessarily cumbersome and inefficient. These procedures were modified after the Mid-Term Review, and implementation improved.

Two extensions were sought for the project; the first, after the 1999 Mid-Term Review, extended the closing date by two years to December 31, 2003. A second extension established a new closing date of December 31, 2005. In total, these extensions increased the life of the project by four years; while unusual, these years were the period in which the project achieved its greatest results, in large part due to the changes made after the mid-term review, as well as to the consolidation of project teams and maturity of procedures and operations.

5.4 Costs and financing:

The sustainability of project outcomes and activities has been rated as **Highly Likely**. The cost and financing estimates forecast during project preparation were fairly accurate, though administrative costs were eventually nearly twice what had been forecast (largely due to the extension of the implementation period). However, national level economic difficulties, financing constraints, and stringent cofinancing requirements which impeded disbursements severely challenged early project implementation. After a restructuring of procedures, and especially disbursement requirements, at mid-term, these challenges were largely resolved. The most important change was removing the direct one to 1 cofinancing requirement for each project activity, which made implementation delays due to national budget complications less likely. At project closing, 100% of funds were disbursed. The delays did cause the project to modify certain foreseen activities, for example one subproject has to be canceled because of the shorter period available for execution.

6. Sustainability

6.1 Rationale for sustainability rating:

At the close of project operations in December 2005, the Brazilian government agreed to incorporate PROBIO as a program within MMA. This reflects Brazilian government commitment to further advance biodiversity conservation in the country. The government has also agreed to update the list of 900 priority areas first established under PROBIO every 10 years in order to assure its continuing relevance to policy and planning. Furthermore, the government funded, with national financing, the last several months of implementation of the few subprojects that had not been finalized by project close.

It should be noted that, while the sustainability of project achievements and outcomes at the national level

is unquestionable, on the local level the results are more mixed. The independent evaluation of subprojects conducted after project close found that 93% of those surveyed felt the perspective of continuing the work begun under PROBIO was high or substantial. However, 53% also felt that the direct impact on communities related to the subprojects was moderate or low, a sign perhaps of the non-applied nature of many of the subprojects.

6.2 Transition arrangement to regular operations:

As was noted above, MMA has absorbed PROBIO as a fully-integrated program with complete government funding, thus guaranteeing the continuity and sustainability of project activities and achievements.

7. Bank and Borrower Performance

Bank

7.1 Lending:

Bank performance during preparation was found to be entirely **Satisfactory**. The decision to split the PROBIO and FUNBIO projects in the advanced stages of preparation, which was made in coordination with the national government, was highly unusual. However, it resulted in two more tightly-focused, and ultimately successful, projects. The Bank team had a close working relationship with their national counterparts, participated fully in the technical and operational design of the project, and successfully completed all preparation steps necessary in the standard time frame and budget.

7.2 Supervision:

Bank supervision during implementation was found to be **Satisfactory**, both by the reviewing team and by a 2005 Quality Assessment Group (QAG) Quality of Supervision Review. Among the key activities of the Bank team beyond regular supervision, the team was proactive in organizing a grant amendment which extended the life project in such a way that the closing date was less vulnerable to disruptions associated with federal elections and potential changes in government and rearranged disbursement categories in order to provide greater spending flexibility for the project and partially mitigate the impact of the continuing government budget execution difficulties. The Bank also worked with the Borrower to resolve a potential crisis for project staff whose contracts would no longer be eligible for renewal under the UNDP technical assistance agreement, to prepare these staff for a competitive civil service examination, which succeeded in converting most the affected personnel to permanent staff of the environmental secretariat (based upon performance). The Bank team was found to have been diligent in supervising environmental management requirements, paying many visits to the field, and holding frequent discussions with government counterparts. The QAG review found that sound advice and solutions with well-detailed action plans, were consistently provided by the Bank team. Because of the sound technical, fiduciary and administrative supervision, and assistance in developing effective, timely solutions to emerging problems, Bank supervision during implementation has been rated as Satisfactory.

Despite this positive evaluation, some weaknesses in Bank performance during implementation have been noted. Most are structural. In an independent review of subprojects completed after project close, some implementing institutions surveyed complained about the rigidity of Bank procurement and other rules, which they felt caused delays in subproject execution and, at times, presented unnecessary barriers. (Two examples given were the acquisition of necessary chemicals and the requirement of marking vehicles with the project name, even in conflictive zones.) There was also notable frustration with the slow bureaucracy of the Bank, which at times was felt to have hindered subproject execution. These issues are largely beyond

the control of the Bank's project team, but should be noted for their impact on project execution.

7.3 Overall Bank performance:

Based on the above, the overall Bank performance is considered **Satisfactory**.

Borrower

7.4 Preparation:

The borrower's performance during supervision is rated as **Satisfactory**. The government participated fully in the design and preparation of the project, contributing staff time and resources during the preparation phase. Government teams also participated actively in a series of preparation and appraisal missions. An independent review of subproject implementing agencies found that the preparation of the project was rated highly by 76% of those surveyed. The decision to separate the PROBIO and FUNBIO projects was made in the final stages of preparation, in order to leverage additional private sector funding for biodiversity, which would have been impossible at the time under a joint public-private project. This decision was ultimately validated by two successfully-executed projects. While there were initial challenges with the pre-definition of the first subprojects, the government team immediately incorporated the lessons learned to ensure that subproject selection methods were transparent and followed national priorities, and to arrange workshops to explain these procedures. The quality of the project design is largely a result of the work of the national preparation team, as well as of Bank supervision during this time.

7.5 Government implementation performance:

Government implementation performance is rated as **Satisfactory**. As was noted earlier, several governmental constraints hampered the early implementation of the project. Fiscal restraints due to IMF fiscal austerity measures, budget freezes during election years, disbursement delays due to problems with counterpart financing, and a change in guideline regarding consultants were all significant challenges to project implementation. However, during the second half of the project overall government implementation performance improved significantly. The government became a primary supporter of the project, with many different governmental organizations from IBAMA to the National Forest Agency and the National Petroleum Agency incorporating PROBIO's results into their policies and programs. The government has also been exceptional in guaranteeing the sustainability of the project's achievements, by funding the subprojects that had not finalized work by project close, agreeing to update the list of 900 Priority Areas every 10 years, and absorbing PROBIO as a regular MMA program. These achievements helped compensate for an early weak performance, and lead to an overall rating of satisfactory.

7.6 Implementing Agency:

The performance of the implementing activity during project implementation was judged to be **Satisfactory** . As was noted above, the early years of the project were marked by relatively poor performance. Some of this was due to factors beyond the control of the implementing agency (see above), However, other issues, such as a constant turnover in personnel, unfamiliarity of the coordination team with processes and procedures by the implementing agency, and cumbersome bureaucracy were within the control of the implementing agency and team. After the Mid-Term Review, when administrative procedures were revised and a new team put in place, the performance of the coordination team, and project implementation in general, improved greatly. This improved performance was reflected in the surveys collected in the independent review, where most subprojects which began execution after the first few years of the project felt supported and attended to by the coordination team. The coordination team was found to be

well-qualified, experienced, sensitive to the evolving needs of the subprojects, and agile in responding to requests. This was aided by the interpersonal relationships established between members of the coordination and subproject teams, which often contributed to facilitating the work of all. The rules for subprojects were found to be clear, having evolved to form a democratic and participative execution process.

Despite the overall positive evaluation of the implementing agency, some problems remained. The independent review of sample subprojects noted an occasional disconnect between available resources and objectives, which at times resulted in a delay in execution. The survey found that executors would have appreciated better defined administrative procedures and standards for document submission, and that at times disorganization within the team also contributed to delays (for example when key positions went unfilled, leaving no one able to sign documents). Training, which was a strong point at the beginning of the project, decreased as time wore on. This training was largely focused on financial management; some felt that other subjects such as monitoring and evaluation required additional training. The many layers of bureaucracy within MMA were noted with frustration. Some subproject executors noted difficulties in the relationship between MMA and partner institutions like IBAMA which affected subproject execution. The same study reported that some surveyed felt there had been insufficient political articulation on the part of MMA to ensure that subproject results could be implemented after the end of the project. These challenges, while important, are relatively minor. The overall performance of the implementing agency and team over the life of the project improved steadily and was ultimately successful; thus implementing agency performance overall was judged to be satisfactory.

7.7 Overall Borrower performance:

Based on the above, the overall Borrower performance is considered **Satisfactory**.

8. Lessons Learned

PROBIO is already serving as a model for numerous other biodiversity projects in Brazil. Among the key lessons which have been learned through the successful implementation of the PROBIO project are:

Strategic

- Building consensus around problems, priorities, and strategies for action (for example to establish the 900 Priority Areas for Biodiversity Conservation) results in more immediate and broad acceptance.
- The incorporation of biodiversity into other productive sectors needs to be promoted to achieve the greatest impact.
- Partnerships for biodiversity conservation established between diverse actors can multiply potential impact and increase sustainability.
- The academic community can make key contributions if mobilized to think outside the conventional, discipline-specific boxes, address challenges, and help resolve them in practical, multi-sectoral ways.

Information

- Information dissemination can have a high impact, especially if carefully targeted towards key stakeholders
- Information should be packaged for all target audiences – scientists, policy makers, local communities, etc. – in a way that is relevant, accessible, and appealing to each. Each is an

important audience.

- Targeted, applied research can stimulate policy debate and generation if it is disseminated in a manner that is easily translated into public policy.
- Bringing people involved in an initiative together for information exchange, as happened with subproject coordinators and in the biome workshops, generates a high degree of knowledge sharing, network creation, and activity stimulations.

Operational

- Project and activity design should be participatory, involving all relevant stakeholders from an early stage
- Project executors can and should be creative in developing ways to leverage funds (through joint calls for proposals, etc.) in order to sidestep fiscal constraints
- Removal of 1 to 1 cofinancing requirements for each transaction (in order to allow 100% GEF financing of specific activities) can increase flexibility under difficult fiscal constraints and allow a project to be implemented with greater efficiency.
- The planning phase must include a high level of attention to methodologies and procedures.
- It helps to match the calendar year of the project to the fiscal year of the country.
- Never assume promises which depend on third parties.

Subprojects

- Subproject coordinators benefit greatly from systematic management training.
- Implementation teams should be provided with a kit including manuals, procedures they will be expected to follow, key project documents, etc.
- Bringing together subproject coordinators and teams to share experiences and exchange knowledge is key.
- Reducing bureaucracy, making resource use more flexible, and speeding up transactions greatly improves the efficiency of subproject execution.
- The monitoring of subprojects should include not only financial and operational matters but also technical issues, and should result in more focused support and guidance for the subproject implementers.

9. Partner Comments

(a) Borrower/implementing agency:

Braulio Dias
Director of Biodiversity Conservation
Ministry of the Environment (MMA)

Below is an analysis of the principal impacts of PROBIO on the implementation of the Convention on Biological Diversity (CBD) in Brazil, focused on the CBD's operational articles, and on the institutional consolidation of the biodiversity area within the federal government.

CBD Article 6 (national policies and programs)

PROBIO supported the implementation in Brazil of public biodiversity policies as the primary implementation instrument of PRONABIO and the PPA Biodiversity Program; through the consolidation of the PROBABIO Coordinating Commission, which resulted in the creation of CONABIO; and by obtaining recognition of Biodoversity Priority Areas as a public policy instrument.

The Coordinating Commissions of PRONABIO and CONABIO were the first Brazilian deliberative organisms in the environmental area to have an equal government and civil society composition.

CBD Article 7 (evaluation and monitoring of biodiversity)

PROBIO developed the most encompassing and extensive effort in the world to identify Priority Areas for Biodiversity, supported the greatest number of Rapid Biodiversity Assessments in areas where biodiversity information was deficient, supported the widest revision of the National Lists of Species Threatened with Extinction, created the forst National Diagnostic of Exotic Invasive Species, created the first national 1:250,000 scale map of vegetation cover in all the biomes, and supported an important set of evaluations on genetic variability in selected groups of plants with economic value.

CBD Article 8 (*in situ* biodiversity conservation)

With the identification of the Priority Areas for Biodiversity, PROBIO contributed directly to the accelerated creation of protected areas, both by the federal government and by state governments. In the period from 1998 to 2002, 5.7 million hectares of national parks were created by the federal government, and in the period from 2003 to June 2006 another 18.4 million hectares of conservation units (CUs) were created by the federal government, totalling 24.1 million hectares created between 1999 and 2006. Additionally, PROBIO supported pioneering initiatives in planning and sustainable use around CUs in order to reduce the anthropic pressures on CUs and promote greater socioeconomic and environmental sustainability around UCs.

PROBIO supported the elaboration of the most extensive set of plans in the country for the recuperation of species threatened with extinction and overexploited species, and managed to leverage significant additional resources from the FNMA for the same objective. As a result of the activities supported by PROBIO the Permanent Technical Chamber on Endangered or Overexploited Species within CONABIO, and the Brazilian Alliance for Zero Extinction and Brazilian Forum for Zero Extinction were launched on World Biodiversity Day in 2006.

PROBIO was primarily responsible for the change in the treatment of the question of exotic invasive species in the country, and gained notable environmental status based on the elaboration of the first National Diagnostic of Exotic Invasive Species, the first National Symposium on Exotic Invasive Species, the creation of the Permanent Technical Chamber on Endangered or Overexploited Species within CONABIO, support for projects to elaborate control plans for various exotic invasive species, and promote the inscription of Brazil to the Initiative of the 10 Countries for the Global Invasive Species Program.

CDB Article 9 (*ex situ* biodiversity conservation)

PROBIO did not work directly with ex situ biodiversity conservation, but supported the information generation on the files of the *ex situ* collections of many national institutions, in particular regarding the local/creole varieties and wild relatives of cultivated plants (manioc, peanut, cashew, pumpkin, corn, cotton, rice and pupunha).

CDB Article 10 (sustainable use of biodiversity)

PROBIO supported innovative initiatives for the sustainable use of the biodiversity in areas around protected areas, in the management of native pollinators of cultivated species or species with economic value which are harvested, in the identification of native cultivated plants which are underutilized but of great potential (“Plants of the Future”), and in the control of exotic invasive species.

CDB Article 11 (biodiversity incentive measures)

PROBIO did not work directly with biodiversity incentive measures that promote the conservation and sustainable use of biodiversity in the private sector, but supported the development and publication of the "Manual for Economic Valuation of the Environmental Resources" under the coordination of IPEA and its use in the training of IBAMA and of EMBRAPA technicians, supported the elaboration and disclosure of "Case Studies in the Economic Valuation of Brazilian Biodiversity" and "Case Studies in the Distribution of Benefits in Brazil and in Foreign Countries," "Fragmentation of Ecosystems: Causes, Effects on Biodiversity and Recommendations for Public Polities" identified public policy instruments for reducing and reversing the process of fragmentation of Brazilian ecosystems.

CDB Article 12 (biodiversity research and training)

PROBIO represented the greatest effort carried out by MMA to mobilize the capacities of the Brazilian scientific community to focus on and develop solutions for the topic of biodiversity management. In total 144 subprojects on identification, impact evaluation, and monitoring and management of biodiversity were supported, involving 284 research institutions. In the scope of these subprojects, and with the aid of CNPq, 642 research scholarships were granted, which allowed the post graduate study of 6 post-doctorates, 67 doctorates and 104 masters for researchers throughout the national territory.

CDB Article 13 (education and public awareness about biodiversity)

The majority of the subprojects supported by PROBIO developed initiatives and products (primers, videos, courses, etc.) for education and public awareness about Brazilian biodiversity, totaling around 500 products and community courses. Additionally PROBIO, in partnership with the Directorate of Environmental Education of MMA and the Ministry of Education and Culture supported the elaboration and publication of an extensive Educational Kit for the basic education professors to teach subjects regarding biodiversity, including information about the Brazilian biomes, species of the Brazilian fauna threatened of extinction (according to the official list), the problems of ecosystem fragmentation of ecosystems and invasive species, and the importance of conservation units.

CDB Article 14 (evaluation and mitigation of impacts on biodiversity)

PROBIO supported important initiatives to identify factors that cause impacts on Brazilian biodiversity, out of which stand out the identification of the Priority Areas for the Biodiversity of each Brazilian biome, the revision of the National List of Species Threatened with Extinction, the first National Diagnostic of Exotic Invasive Species, elaboration of the first national 1:250.000 scale map of remaining vegetation cover in each Brazilian biome; support for the recuperation plans for 61 species threatened with extinction; and the elaboration of control plans for 10 animal and plant exotic invasive species, as well as micro-organisms.

CDB Article 15 (access to genetic resources and distribution of benefits)

PROBIO did not work directly with the subject of the access to genetic resources and distribution of benefits, but supported the completion of several studies and publications related to the subject (of which the book "Traditional Knowledge and Biodiversity in Brazil" and the study "Case Studies on the Distribution of Benefits in Brazil and in Foreign Countries" stand out) and supported the initial operation of the Council on the Management of Genetic Heritage (CGEN), created to be the national authority responsible for this issue.

CDB Article 16 (technology access and transfer)

PROBIO did not work directly with the subject of the access to and transfer of technologies, but supported

initiatives that promoted a better internalization of technologies developed outside the country, particularly in the area of information technology, through the Brazilian Biodiversity Information Network Project implemented by the Tropical Database of the André Tosello Foundation; of climate change modeling through the Characterization of the Current Climate and Definition of Climate Alterations in the Brazilian territory through the XXI Century implemented by CPTEC/INPE; Rapid Biodiversity Assessments implemented by several institutions through Announcement 02/2001; and of monitoring methods for coral reefs implemented by the subproject Monitoring Coral Reefs.

CDB Article 17 (exchange of biodiversity information)

PROBIO implemented three activities that contributed much to the implementation of an information exchange on Brazilian biodiversity: 1) it supported the consolidation of syntheses of biodiversity information for each biome or set of Brazilian biomes, which were published in printed publications, CD-ROMS and electronic versions on the website of the PROBIO and of the CHM-BRAZIL; 2) supported the Brazilian Biodiversity Information Network Project implemented by the Tropical Database of the André Tosello Foundation, which developed 132 online biodiversity databases which are now incorporated in the website of the National Focal Point of the Clean Development Mechanism of the CDB – the CHM-BRAZIL – Brazilian Biodiveristy Portal; and 3) supported the output and publication of 36 books synthesizing a variety of biodiversity-related subjects, including the creation of the "Biodiversity Series," which are available in electronic versions on the websites of PROBIO and the CHM-BRAZIL and on CD-ROM. In addition, the information generated by PROBIO was disseminated in three Brazil National Reports for the CDB, published in hard copy and available electronically on the websites of PROBIO and the portal of the Secretariat of the CDB in the CHM in 1998, 2002 and 2006.

CDB Article 18 (scientific and technical cooperation on biodiversity)

PROBIO did not directly work with the subject of scientific and technical cooperation on biodiversity among the member countries of the CDB, but information generated by PROBIO was disseminated in global and regional meetings about cooperation in the area of biodiversity, particularly in the Meeting to Identify Biodiversity Themes for Cooperation and Exchange among the South-American Countries, which was held in Rio de Janeiro in December 2003; in the meeting of on the Clearing-House Mechanism for Latin America and Caribbean, which was held in Brasilia in March of 2005; in meetings of the Subsidiary Organism for Technological, Technical, and Scientific Counsel (SBSTTA) and meetings of the Conference of the Parties to the Convention on Biodiversity, especially the COP8 held in Curitiba in March 2006.

CDB Article 19 (biotechnology biosecurity)

The PROBIO did not work with biosecurity for GMOs.

CDB Article 20 (financial resources for biodiversity)

PROBIO constituted one of the most important mechanisms for financial contributions for Brazilian biodiversity by the GEF and by the federal government of Brazil, beyond having contributed to the leveraging of significant additional financial resources from FNMA, of CNPq and 284 public and private organizations that were executors of PROBIO subprojects, adding up to national counterpart resources of approximately USD 31 millions. Additionally, the signature of the contract of PROBIO with the World Bank made feasible, with the financial counterpart of the National Treasury and the authorization of the Ministry of the Environment, the creation of the Brazilian Fund for Biodiversity (FUNBIO) with financial support of the GEF through the World Bank.

Daniela Suárez de Oliveira
PROBIO Project Coordinator

The experience of implementing a project like PROBIO contributed to the implementation of other Ministry of the Environment projects. It can be highlighted that the implementation arrangement was complex, requiring the installation of a team in MMA and another in CNPq. Because of this, the possibility of payment of grants for the execution of technical or administrative activities in the ambit of subprojects has been pointed out by various executors as being better than in other projects, justifying those similar arrangements be replicated. In operational terms, the change to make the provision of counterpart funds separate from the provision of GEF funds more flexible was strategic in making project implementation more agile. Also the possibility that the Technical Secretariat of PROBIO could approve Torso for less than $10,000 helped make the process of contracting consultants for subprojects more agile since, by the end of the project, there had been 1508 Torso. Having the Task Manager of the project reside in Brazil, in the same city in which the project was executed, was also shown to be more adequate in permitting that negotiations and no objections were done and received with more agility.

(b) Cofinanciers:

N/A.

(c) Other partners (NGOs/private sector):

Denise Marçal Rambaldi
General Secretary
Associação Mico-leão-dourado (Golden Lion Tamarin Association)

The support of PROBIO was very important for the support of the strengthening of the Associação Mico-Leão-Dourado, which became a regional reference in areas such as geographic information systems, protection and structural restoration of fragmented landscapes, and support to the formulation and implementation of public policies for biodiversity conservation.

All the institutional partnerships established during the execution of the project – universities, state government organisms and local prefectures – were maintained and strengthened, resulting in the implementation of diverse actions recommended during project implementation such as, for example, the implantation of forest corredors for the restoration of connectivity and increase in landscape resiliancy.

PROBIO provided a unique opportunity for the development of studies and analyses on landscape fragmentation in the hydrographic basin of the São João river, making possible the identification of priority areas for biodiversity conservation. Through a better understanding of the long-term effects of forest fragmentation on the dynamic of this landscape, the actions supported by PROBIO made the integrated and participatory planning of land use in the basin possible, resulting in the integral protection of private areas with the creation of RPPNs (private reserves) and the ordenation of land use in more than 150,000 hectares with IBAMA's creation of the Bacia do Rio São João/Mico-Leão-Dourado Environmental Protection Area. It was only after the support of PROBIO that Associação Mico-Leão-Dourado began to focus more of its efforts on the management and restoration of the habitat of the endangered golden lion tamarins.

Gláucia Moreira Drummond
Technical Superintendant

Fundação Biodiversitas (Biodiversitas Foundation)

PROBIO – the Biodiversity and Sustainable Use of Brazilian Biodiversity Project – implemented in the ambit of the Ministry of the Environment to operate the National Biological Diversity Program (PRONABIO) under the guidelines of the National Biodiversity Policy, represents a framework within the country in respect to the efforts to direct and make effective concrete actions for the conservation, sustainable use, and repartition of the benefits of our megadiversity, following the proposed strategy defined by the Convention on Biodiversity.

Brazil, the example for other tropical countries, faces a double challenge: protect the significant part of the global biodiversity heritage of which it is the steward, and at the same time generate the technical-scientific information necessary to carry out this activity. Attentive to this necessity, PROBIO, in its 10 years of existence, has been providing a significant increase in knowledge which, through the stimulation of new research, dissemination and results integration, has allowed a great advance in the identification of risks and priorities and in the proposition of conservation methods and strategies which involve intersectoral participation in environmental planning.

Considering the size of Brazilian territority, and the visible socioeconomic disparities between different regions of the country, which are reflected in the production capacity of scientific knowledge concentrated in areas located in Central-South axis, there are still many knowledge gaps that should be overcome. As the biological cause-and-effect relationships are often not visible in the short term, the need for investments in studies which permit the long-term monitoring of the effetiveness of conservation actions still stands out, which justifies the existance of programs like PROBIO.

In name of the Furnace Biodiversities, as a beneficiary of PROBIO resources, I would like to especially point out the support to two projects, the “Red Book of Fauna Endangered with Extinction,” and the project “Marquis Conservation and Management in Minas Gerais.” Considering the history of the Furnace Biodiversities in respect to the conservation of endangered species, we believe that the publication of the Red Book, which brings together for the first time all the scientific knowledge generated up to that point on endangered species, will have a real impact on the conservation of species as it will allow us to: 1) alert society about the loss of biodiversity, co-opting it to act responsibly in the co-management of natural resources; 2) direct the investments of Brazilian development organizations in specific programs for the recuperation of endangered species; and 3) direct public conservation policies, technically subsidizing the managers in what, where, and how to conserve.

The project “Marquis Conservation and Management in Minas Gerais” contributed, in turn, to the increase in knowledge about one of the 25 most endangered primate species in the world, allowing the location of new occurrence areas for the species and verifying the increase in the number of individuals identified. This information, certainly, will change the path of the conservation actions designed to protect the species.

Institutionally, the participation of the Furnace Biodiversities in PROBIO brought relevant benefits in that it provided a condition for standing out in subject of endangered species on the national scene, besides permitting our technical improvement, capacitating a great number of specialists to work with endangered species.

José Maria Cardozo ad Silva
Vice President for Science

PROBIO contributed to the significant increase in knowledge about Brazilian biodiversity. New information was generated, existing information was organized, and new synthesis were done. Making information flow between all the sectors of society, PROBIO allowed the environmental policies of the country to be perfected, always on the basis of quality scientific information. We still need to advance much, but the steps taken with PROBIO help were fundamental.

10. Additional Information

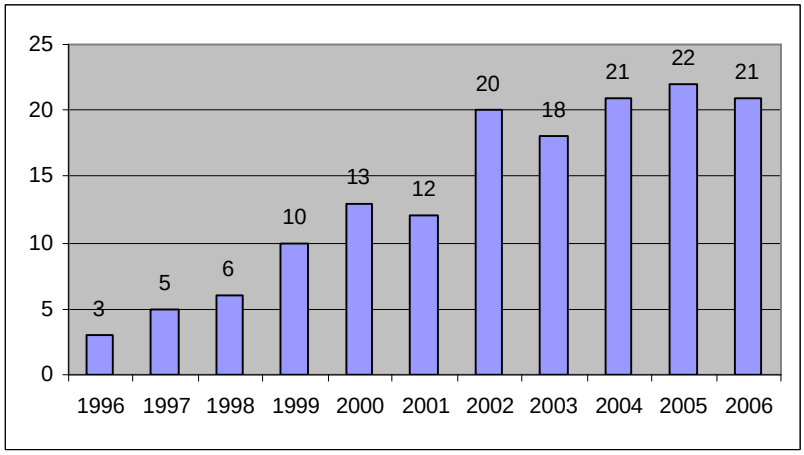
The following is a summary of key findings from the *Project Impact Evaluation* carried out by Dr. Paul Little, Doctor of Anthropology, Univerity of Brasilia.

Project Outcomes

General

- There was a high degree of achievement of the original project objectives.
- The quality of technical implementation improved each year of the project.
- The project extensions were similar to those of other contemporary international donor projects. The reasons included: complex objectives, difficult bureaucracies, unfilled technical positions, and lack of experience of the initial team.
- The World Bank insisted on the hiring of new technical specialists, with consolidation of team after 2001 the quality of execution improved greatly. The original delays did not affect the overall quality of project activities.
- A primary problem early in the project was the ability to spend all available financial resources. Once the project team was consolidated, an agile manner to select subprojects established, and the requirement for equal GEF and government disbursements removed, financial execution imporved significantly.

Number of people on the PROBIO staff, per year

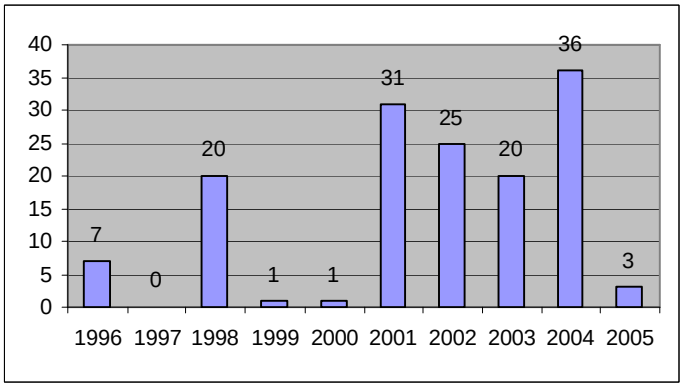


Subprojects

- During the course of project implementation there were adjustments to project priorities according to the evolving understanding of the environmental and socioeconomic context. First stage priorities included biomes and priority areas, then ecosystem fragmentation, inventories and management plans, and finally information for future decision making and linkages bewteen biodiversity use and economics.

- The decision to work only through induced demand for subprojects was key in planning and channeling knowledge generation.
- After 2001 there was a great increase in the number of subprojects as a result of greater capacity in the project team and consistent pressure from the World Bank.

Number of subprojects approved, per year



- 144 of 146 approved subprojects were implemented, which was considered a high point of the project
- Many subprojects had a high impact in generating new knowledge and techniques that were of high importance in Brazil. (See full report for a discussion of impacts by subproject thematic area.)
- Among the most important contributions of the project was the establishment of the priority areas for biodiversity conservation within the 5 biomes. The biome-level workshops, plus the subsequent subprojects to map vegetation coverage in each biome, were especially important in generating and organizing information on all Brazilian biomes.

Institutional and Policy Results

- PROBIO played an important role in many of the changes in public policies and institutional structure related to biodiversity over the last decade. The information generated by the project was especially important to the drafting of new biodiversity policies.
- PROBIO played an especially large part in the restructuring of MMA, as it was one of the most important biodiversity programs.
- The project was responsible for building interinstitutional partnerships with 284 institutions, as well as intergovernmental partnerships with FNMA (through joint calls for

proposals) and CNPq (responsible for subproject contracting and financing).

- Starting in 2000, the project began to publish the results of its work. The quality and quantity of the material producted is considered one of the strongest points of the project. In 1996, there were hardly any publications in Portuguese on Brazilian biodiversity. Now, thanks in large part to PROBIO, many of these gaps have been filled.

PROBIO Impacts

- The principal area where PROBIO had a direct result on legal instruments was through the identification of Priority Areas for Biodiversity Conservation in each biome. These evaluations were part of the agreement which created PROBIO, showing excellent strategic vision. The Priority Areas are now being used in 1) Environmental Impact Assessments; 2) calculation of environmental compensation paid for works within priority areas; 3) determination of areas available for oil exploration; 4)determination of water usage rights by the National Water Agency; 5) in National Forest planning; 6)MMA programs for the Atlantic Forest and other conservation units; and 7) guiding government activities against deforestation in tropical forests.
- The organization of the project around the biome concept served to create macro level analysis which allowed Brazilian biodiversity to be treated within a common framework, allowed visualizations of ecological relationships on a large scale, and offered an adequate framework for the elaboration of public policies.
- The concept of environmental services was relatively new; PROBIO's work in this field advanced the economic valorization of servcies.
- The project placed great focus on management plan as a technical tool. PROBIO contributed new technical knowledge on plans for 1) exotioc invasive species, 2) endangered native species, 3) sustainable use of biodiversity resources, and 4) ecological corridors.
- The project contributed directly to the modification of the federal government's administrative structure for biodiversity, especially the SBF and CONABIO, and stimulated new governmental programs in areas like agrobiodiversity.
- The project established new intergovernmental and interinstitutional partnerships, which have proven important beyond the project implementation period.

Areas of Weak Impact

Though most of the project's impacts were highly positive, the independent evaluation identified a few areas where PROBIO's impact was less than might have been expected.

- The project had relatively little focus on sustainable use of biodiversity; more emphasis was placed on biodiversity conservation.
- There was little dialog bewteen PROBIO and the Brazilian Biodiversity Fund (FUNBIO), which was established at the same time as FUNBIO to work with biodiversity conservation on the private sector.
- The project had few linkages to global biodiversity programs and control and monitoring mechanisms.

Annex 1. Key Performance Indicators/Log Frame Matrix

Outcome / Impact Indicators:

Indicator/Matrix	Projected in last PSR[1]	Actual/Latest Estimate
Clear biodiversity conservation strategies agreed among major stakeholders, adopted by the Government and disseminated.	Agreement among stakeholders on major issues in evidence; strategies disseminated; successful mainstreaming of strategies by government.	PROBIO had significant impact on the national biodiversity policy and official strategy. The government adopted the results, for example National Petroleum Agency standards and Priority Areas Decree.
Government funding decisions and policy recommendations are more strategic.	Evidence of more strategic policy and funding decisions influenced by PROBIO recommendations and findings.	Ministry restructuring created Secretariat of Biodiversity and Forestry & Directorate for Biodiversity Conservation, which are key in mainstreaming biodiversity. PROBIO will continue as govt program.
New models of biodiversity conservation and sustainable use are tested.	Subprojects have been concluded and their lessons synthesized and analyzed.	120 subprojects finished, 24 continuing with government funds. New models of biodiversity conservation analyzed, implemented and disseminated with participation of universities, research institutes, NGOs, private sector, government.

Output Indicators:

Indicator/Matrix	Projected in last PSR[1]	Actual/Latest Estimate
Number of workshops.	5 biome level workshops and additional workshops focusing on conservation and sustainable use held.	5 workshops for evaluations at the biome level held and their results widely disseminated. Several thematic workshops also organized by the subprojects.
Map synthesizing 900 priority areas for conservation and sustainable use of Brazilian biodiversity produced.	Map results influence protected areas policy throughout Brazil.	Map widely disseminated, incorporated into biodiversity conservation and use planning at national, state, and municipal levels, and guiding policy of National Petroleum Agency and other institutions.
15 studies on the impact of fragmentation on biodiversity completed.	Study results analyzed and disseminated.	15 studies analyzing impact of ecosystem fragmentation on biodiversity completed and results disseminated.
Increased technical capacity on biodiversity conservation and use in Brazil.	Increased technical capacity on biodiversity conservation and use in Brazil.	784 researchers and more than 70 master degrees theses and 29 PhD level theses supported, 242 technical articles, 32 books chapters and 37 books published.

[1] End of project

Annex 2. Project Costs and Financing

Project Cost by Component (in US$ million equivalent)

Component	Appraisal Estimate US$ million	Actual/Latest Estimate US$ million	Percentage of Appraisal
Priority Setting and Dissemination	3.07	2.83	92
Model Biodiversity Sub-Projects	13.10	13.01	99
Administration	1.85	3.69	199
Total Baseline Cost	18.02	19.53	
Total Project Costs	18.02	19.53	
Total Financing Required	18.02	19.53	

Project Costs by Procurement Arrangements (Appraisal Estimate) (US$ million equivalent)

Expenditure Category	Procurement Method[1] ICB	NCB	Other[2]	N.B.F.	Total Cost
1. Works	0.00 (0.00)	0.00 (0.00)	0.43 (0.43)	0.00 (0.00)	0.43 (0.43)
2. Goods	0.57 (0.57)	0.00 (0.00)	4.77 (4.77)	0.00 (0.00)	5.34 (5.34)
3. Services	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
4. Consulting Services	0.00 (0.00)	0.00 (0.00)	11.56 (3.50)	0.00 (0.00)	11.56 (3.50)
5. Recurrent Costs	0.00 (0.00)	0.00 (0.00)	2.56 (0.72)	0.00 (0.00)	2.56 (0.72)
6. Miscellaneous	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Total	0.57 (0.57)	0.00 (0.00)	19.32 (9.42)	0.00 (0.00)	19.89 (9.99)

Project Costs by Procurement Arrangements (Actual/Latest Estimate) (US$ million equivalent)

Expenditure Category	Procurement Method[1] ICB	NCB	Other[2]	N.B.F.	Total Cost
1. Works	0.00 (0.00)	0.00 (0.00)	1437063.94 (885083.53)	0.00 (0.00)	1437063.94 (885083.53)
2. Goods	261917.87 (261917.87)	0.00 (0.00)	591631.62 (308872.17)	0.00 (0.00)	853549.49 (570790.04)
3. Services	0.00 (0.00)	0.00 (0.00)	2422677.87 (1445803.52)	0.00 (0.00)	2422677.87 (1445803.52)
4. Consulting Services	0.00 (0.00)	0.00 (0.00)	10583046.07 (6673539.42)	0.00 (0.00)	10583046.07 (6673539.42)
5. Recurrent Costs					

	0.00 (0.00)	0.00 (0.00)	539321.80 (424783.49)	0.00 (0.00)	539321.80 (424783.49)
6. Miscellaneous	0.00 (0.00)	0.00 (0.00)	3685794.51 (0.00)	0.00 (0.00)	3685794.51 (0.00)
Total	261917.87 (261917.87)	0.00 (0.00)	19259535.81 (9738082.13)	0.00 (0.00)	19521453.68 (10000000.00)

[1/] Figures in parenthesis are the amounts to be financed by the Bank Loan. All costs include contingencies.

[2/] Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

Project Financing by Component (in US$ million equivalent)

Component	Appraisal Estimate			Actual/Latest Estimate			Percentage of Appraisal		
	Bank	Govt.	CoF.	Bank	Govt.	CoF.	Bank	Govt.	CoF.
Priority Setting and Dissemination	1.99	1.08		1.88	0.95		94.5	88.0	
Model Biodiversity Sub-Projects	8.01	5.09		8.12	4.89		101.4	96.1	
Project Administration	0.00	1.85		0.00	3.69		0.0	199.5	
Total	10.00	10.00		10.00	9.52		100.0	95.2	

Annex 3. Economic Costs and Benefits

Project costs were assessed at appraisal as follows.

The total project cost was estimated at US$20 million (US$10 million from GEF Trust Fund and US$10 million from the Brazilian Government), including physical and price contingencies amounting to approximately 7% of total project costs. Subproject implementing entities also contributed at least 25% of subproject costs as cofinancing. GEF grant funds were fully disbursed and executed at project close.

Benefits

A net economic benefit was not calculated at appraisal. While a wealth of knowledge, information, technology, and conservation benefits were generated during the project, these results are nearly impossible to quantify.

Annex 4. Bank Inputs

(a) Missions:

Stage of Project Cycle	No. of Persons and Specialty (e.g. 2 Economists, 1 FMS, etc.)		Performance Rating	
Month/Year	Count	Specialty	Implementation Progress	Development Objective
Identification/Preparation				
7/ 1993		Joint Preparation Team		
8/12/1994		Joint Preparation Team		
10/27/1994		Joint Preparation Team		
Appraisal/Negotiation				
03/20/1995	*9*	1 SENIOR ANTHROPOLOGIST; 1 OPERATIONAL LAWYER; 1 ENVIRONMENTAL LAWYER; 1 FINANCIAL SPECIALIST; 1 BIODIVERSITY SPECIALIST; 1 CONSERVATION SPECIALIST; 1 INSTITUTIONAL DEVELOPMENT SPECIALIST; 1 PROJECT COST AND PROCUREMENT SPECIALIST		
12/06/1995	*2*	TASK TEAM LEADER, LAWYER		
Supervision				
12/04/1997	*1*	TASK TEAM LEADER (1)	S	
03/16/1998	*1*	TASK TEAM LEADER (1)	S	
04/10/1999	*1*	ENVIRONMENT SPECIALIST (1)	S	
12/17/1999	*2*	TASK TEAM LEADER (1), ENVIRONMENTAL SPECIALIST (1)	S	
05/05/2001	*1*	ENV. SPECIALIST (1)	S	
05/20/2002	*1*	SENIOR ENV. SPECIALIST (1)	S	
11/14/2002	*1*	ENV. SPECIALIST (1)	S	
05/30/2003	*2*	TASK TEAM LEADER (1); OPERATIONS ANALYST (1)	S	
03/22/2004	*3*	SENIOR BIODIVERSITY SP (1); CONSULTANT (1); RESEARCH ANALYST (1)	S	
10/24/2004	*6*	TASK TEAM LEADER (1); TECHNICAL SPECIALIST (1); CONSULTANT (2); FINANCE SPECIALIST (1);	S	

	05/25/05	*4*	PROCUREMENT SPECIALIST (1) TASK TEAM LEADER (1); CONSULTANT (2); finance specialist (1)	S	
ICR	03/06	*1*	ICR Consultant	S	S

(b) Staff:

Stage of Project Cycle	Actual/Latest Estimate	
	No. Staff weeks	US$ ('000)
Identification/Preparation		
Appraisal/Negotiation		
Supervision		
ICR		
Total		

Annex 5. Ratings for Achievement of Objectives/Outputs of Components

(H=High, SU=Substantial, M=Modest, N=Negligible, NA=Not Applicable)

	Rating				
☐ *Macro policies*	○ *H*	○ *SU*	○ *M*	○ *N*	● *NA*
☒ *Sector Policies*	● *H*	○ *SU*	○ *M*	○ *N*	○ *NA*
☒ *Physical*	● *H*	○ *SU*	○ *M*	○ *N*	○ *NA*
☒ *Financial*	○ *H*	○ *SU*	● *M*	○ *N*	○ *NA*
☒ *Institutional Development*	● *H*	○ *SU*	○ *M*	○ *N*	○ *NA*
☒ *Environmental*	○ *H*	● *SU*	○ *M*	○ *N*	○ *NA*
Social					
☐ *Poverty Reduction*	○ *H*	○ *SU*	○ *M*	○ *N*	● *NA*
☐ *Gender*	○ *H*	○ *SU*	○ *M*	○ *N*	● *NA*
☐ *Other (Please specify)*	○ *H*	○ *SU*	○ *M*	○ *N*	● *NA*
☐ *Private sector development*	○ *H*	○ *SU*	○ *M*	○ *N*	● *NA*
☒ *Public sector management*	● *H*	○ *SU*	○ *M*	○ *N*	○ *NA*
☐ *Other (Please specify)*	○ *H*	○ *SU*	○ *M*	○ *N*	○ *NA*

Annex 6. Ratings of Bank and Borrower Performance

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HU=Highly Unsatisfactory)

6.1 Bank performance	*Rating*			
☒ *Lending*	○ *HS*	● *S*	○ *U*	○ *HU*
☒ *Supervision*	○ *HS*	● *S*	○ *U*	○ *HU*
☒ *Overall*	○ *HS*	● *S*	○ *U*	○ *HU*

6.2 Borrower performance	*Rating*			
☒ *Preparation*	○ *HS*	● *S*	○ *U*	○ *HU*
☒ *Government implementation performance*	○ *HS*	● *S*	○ *U*	○ *HU*
☒ *Implementation agency performance*	○ *HS*	● *S*	○ *U*	○ *HU*
☒ *Overall*	○ *HS*	● *S*	○ *U*	○ *HU*

Annex 7. List of Supporting Documents

The following is a partial list of supporting materials drawn upon for this ICR:

Avaliação Final do Project: Conervação e utilização sustentável da diversidade biológica brasileira regiões CO-N-NE

Implementation Status Reports

Interview: José Maria Cardoso da Silva, Vice President for Science, Conservation International-Brasil

Interview: Gláucia Moreira Drummond, Technical Superintendant, Fundação Biodiversitas

Interview, Braulio Díaz, Director, Secretariat of Biodiversity and Forests, MMA

Interview: Adriana Moreira, current Task Team Leader, World Bank

Interview: Daniela Olivera, Project Director, MMA

Interview: Denise Marçal Rambaldi, General Secretary, Associação Mico-leão-dourado

Interview: Claudia Sobrevila, former Task Team Leader, World Bank

Mid-Term Review Independent Evaluation

Mission Aide Memoires

Project Appraisal Document

Project Impact Evaluation by Dr. Paul Little, Doctor of Anthropology, Univerity of Brasilia.

Project Status Reports

Publications produced by PROBIO

Avaliação e ações prioritárias para a conservação da biodiversidade do Cerrado e Pantanal. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2000. 26p.

Avaliação e ações prioritárias para a conservação da biodiversidade da Atlantic Foreste Campos Sulinos. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2000. 40p.

Atlas ambiental da APA de Guaraqueçaba. Curitiba: Sociedade de Pesquisa em Vida Selvagem e Educação Ambiental – SPVS. 2000. 47p.

Saberes tradicionais e biodiversidade no Brasil. Diegues, A. C.; Arruda, R. S. V. (Orgs). Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2001. 176p.

Cerrado: caracterização e recuperação de matas de galeria. Ribeiro, J. F.; Fonseca, C. E. L.; Sousa-Silva, J. C. (Eds). Planaltina: Embrapa Cerrados, 2001. 899p.

Biodiversidade da Amazônia Brasileira Capobianco, J.P.R. et al. (Orgs). São Paulo: Estação da Liberdade; Instituto Socioambiental. 2001. 540p.

Avaliação e identificação de áreas e ações prioritárias para a conservação, utilização sustentável e repartição de benefícios da Biodiversidade na Amazônia brasileira. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2001. 144p.

Conservação da biodiversidade em ecossistemas tropicais: avanços conceituais e revisão de novas metodologias de avaliação e monitoramento. Garay, I. E. G.; Dias, B. F. S. (Orgs). Petrópolis: Editora Vozes, 2001. 430p.

Avaliação e ações prioritárias para a conservação da biodiversidade das Zonas Costeira e Marinha**.** Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2002. 72p.

Avaliação e ações prioritárias para a conservação da biodiversidade da Caatinga**.** Brasília: Ministério do Meio Ambiente, Secretaria da Biodiversidade e Florestas. 2002. 36p.

Biodiversidade brasileira - Avaliação e identificação de áreas e ações prioritárias para a conservação, utilização sustentável e repartição de benefícios da biodiversidade brasileira. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2002. 404p.

Projeto de conservação e utilização sustentável da diversidade biológica brasileira: Relatório de atividades 1996 - 2002. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2002. 76p.

Fragmentação de ecossistemas: causas, efeitos sobre a biodiversidade e recomendações de políticas públicas. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2003. 510p.

Mapa das áreas prioritárias para a conservação da biodiversidade + CD Rom contendo o mapa, lista das áreas e o livro Biodiversidade brasileira - Avaliação e identificação de áreas e ações prioritárias para a conservação, utilização sustentável e repartição de benefícios da biodiversidade brasileira. Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2003.

Biodiversidade da Caatinga: áreas e ações prioritárias para a conservação. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2004. 382p.

A floresta com araucária no Paraná: conservação e diagnóstico dos remanescentes florestais. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2004. 236p.

Brejos de altitude em Pernambuco e Paraíba – História Natural, Ecologia e Conservação. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2004. 324p.

A Floresta Atlântica de Tabuleiros – Diversidade funcional da cobertura arbórea. Irene Garay e Cecília Maria Rizzini (Orgs.) Editora Vozes. 2004 256 p.

Biodiversity in the Brazilian Amazon: assessment and priority actions for conservation, sustainable use and benefit sharing. Adalberto Veríssimo et al.; Editor Associado Tony Gross; Coordenação Geral João Paulo Ribeiro Capobianco; traduzido por Tony Gross et al. São Paulo: Estação Liberdade, 2004. 535p.

Taim, banhado de vida/ Núcleo de Educação e Monitoramento Ambiental – NEMA. Rio Grande: NEMA, 2004. 16p.

Mapa das áreas prioritárias para a conservação da biodiversidade + CD Rom contendo o mapa, lista das áreas e o livro Biodiversidade brasileira - Avaliação e identificação de áreas e ações prioritárias para a conservação, utilização sustentável e repartição de benefícios da biodiversidade brasileira.Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2004.

Relatório de atividades Probio 2002 - 2004. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2004. 58p.

Análise das variações da biodiversidade do bioma Caatinga - Suporte a estratégias regionais de conservação. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2005. 446p.

Biodiversidade e conservação da Chapada Diamantina. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2005. 435p.

Espécies invasoras em águas doces – Estudos de caso e propostas de manejo. Odete Rocha, Evaldo Espíndola, Nelsy Fenerich-Verani, José Roberto Verani e Arnola Rietzler (Orgs.). 2005. 416p.

Ações para a conservação de tubarões e raias no sul do Brasil. Porto Alegre: Igaré. 2005. 261p.

Fragmentação de ecossistemas: causas, efeitos sobre a biodiversidade e recomendações de políticas públicas. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2005. 510p. (2nd edición).

Monitoramento dos recifes de coral do Brasil. Situação atual e perspectivas. Beatrice Padovani Ferreira e Mauro Maida MMA, Secretaria de Biodiversidade e Florestas. 2006. 120p.

Educação Ambiental Probio (livro para professores, portfolios e jogos interativos) MMA/UnB , 2006. 136 p.

Probio: 10 anos de atuação MMA. Secretaria de Biodiversidade e Florestas 160 p.

A floresta com araucária no Paraná: conservação e diagnóstico dos remanescentes florestais. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2006. 236p.

Diversidade Biológica e Conservação da Floresta Atlântica ao Norte do Rio São Francisco Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2006 363p.

Mapa das áreas prioritárias para a conservação da biodiversidade + CD Rom contendo o mapa, lista das áreas e o livro Biodiversidade brasileira - Avaliação e identificação de áreas e ações prioritárias para a conservação, utilização sustentável e repartição de benefícios da biodiversidade brasileira.Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2006.

Mapa “Priority Áreas for the conservation, sustainable use and benefit sharing of Brazilian biological diversity”, contendo o mapa, lista das áreas e o livro Biodiversidade brasileira - Avaliação e identificação de áreas e ações prioritárias para a conservação, utilização sustentável e repartição de benefícios da biodiversidade brasileira, em inglês. Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2006.

Parentes Silvestre das Espécies de Plantas Cultivadas. Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2006 44p.

Espécies exóticas Invasoras: situação brasileira. Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas 2006 24 p.

Future Publications

Biota Marinha da Costa Oeste do Ceará.

Cerrado e Pantanal - Áreas e Ações Prioritárias para a Conservação da Biodiversidade.

Mudanças climáticas globais e efeitos sobre a biodiversidade no Brasil.

Inventários Biológicos: resultados e recomendações (impresso e com CD anexo).

Inventários da Lagoa do Cerro e do Casamento.

Planos de manejo de espécies da fauna ameaçadas de extinção.

Planos de manejo de espécies da flora ameaçadas de extinção.

Planos de manejo de espécies exóticas invasoras.

Livro síntese do resultado do WK de: Ações Prioritárias para a Conservação da Biodiversidade da Atlantic Foreste Campos Sulinos.

Livro síntese do resultado do WK de: Ações Prioritárias para a Conservação da Biodiversidade das Zonas Costeira e Marinha.

Inventário da Ilha Grande.

Manejo de Toninhas.

Inventário Biológico no Complexo Jauru.

Relatório final do PROBIO.

Livro vermelho da fauna brasileira ameaçada de extinção.

Inventário do Médio Madeira.

Atlas dos Remanescentes do bioma Amazônia.

Atlas dos Remanescentes do bioma Mata Atlântica.

Atlas dos Remanescentes do bioma Cerrado.

Atlas dos Remanescentes do bioma Pantanal.

Atlas dos Remanescentes do bioma Caatinga.

Atlas dos Remanescentes do bioma Pampas.

CD ROM

Avaliação e Identificação de Áreas Prioritárias para Conservação, Utilização Sustentável e Repartição de Benefícios da Biodiversidade Brasileira – CD-Rom e mapa (em português e inglês) Secretaria de Biodiversidade e Florestas, Ministério do Meio Ambiente.

Corredor de Biodiversidade da Atlantic Forestdo Sul da Bahia. Instituto de Estudos Socio-Ambiental/Conservation International, Ministério do Meio Ambiente.

Fragmentação de ecossistemas: causas, efeitos sobre a biodiversidade e recomendações de políticas públicas. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas.

Análise das variações da biodiversidade do bioma Caatinga - Suporte a estratégias regionais de conservação (CD contendo o livro + o canto das aves da Caatinga).

Biodiversidade da Caatinga: áreas e ações prioritárias para a conservação. Brasília: Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas. 2004.

Avaliação e identificação de áreas e ações prioritárias para a conservação, utilização sustentável e repartição de benefícios da Biodiversidade na Amazônia brasileira.

Avaliação e ações prioritárias para a conservação da biodiversidade das Zonas Costeira e Marinha**.** Brasília Ministério do Meio Ambiente/Fundação Bio-Rio e outros (contendo os resultados e documentos gerados no workshop para avaliação e ações prioritárias para a conservação da biodiversidade das Zonas Costeira e Marinha).

Future CD ROM

Monitoramento dos recifes de coral do Brasil. Situação atual e perspectivas.

Additional Annex 8. List of PROBIO Subprojects

Nº	Subject	Subproject Executing Institutions	Subprojets	Cost of Grant	Cofinancing (R$)
1	Avaliações dos Biomas	Conservation International do Brasil	Avaliação de áreas e ações prioritárias para o bioma Atlantic Foreste Campos Sulinos	303.750,00	-
2	Avaliações dos Biomas	Fundação BIO-RIO	Avaliação e Ações Prioritárias para Conservação da Biodiversidade no Bioma Zona Costeira e Marinha	401.812,72	182.880,00
3	Avaliações dos Biomas	Fundação de Apoio ao Desenvolvimento da Universidade Federal de Pernambuco – FADE	Avaliação e Ações Prioritárias para Conservação da Biodiversidade no Bioma Caatinga	345.000,00	152.411,00
4	Avaliações dos Biomas	Fundação Pró-natureza - FUNATURA	Avaliação de áreas e ações prioritárias para conservação do bioma do Cerrado e Pantanal	260.000,00	87.000,00
5	Avaliações dos Biomas	Instituto Sócio-Ambiental - ISA	Avaliação de áreas e ações prioritárias para o bioma Floresta Amazônica	512.000,00	-
6	Criação de UC´s	Sociedade Nordestina de Ecologia - SNE	Proposta de criação do Parque Nacional do Catimbau /PE	134.920	41.234,00
7	Entorno de UC´s - Chamada I	Conservation International do Brasil	Conservação da Biodiversidade do Recife das Timbebas PARNAM Abrolhos	78.863,00	31.120,00
8	Entorno de UC´s - Chamada I	Conservation International do Brasil	Jalapão: o uso dos recursos naturais	80.000,00	65.000,00
9	Entorno de UC´s - Chamada I	Fundação de Apoio à Vida nos Trópicos – ECOTROPICA	Parque Nacional do Pantanal e Entorno: Parceira para a sustentabilidade	74.400,00	25.320,00
10	Entorno de UC´s - Chamada I	Fundação Diamantinense de Apoio ao Ensino, Pesquisa e Extensão - FUNDAEPE	Utilização sustentável de recursos da biodiversidade nas áreas do entorno do Parque Estadual do Rio Preto (MG)	74.235,00	107.400,00
11	Entorno de UC´s - Chamada I	Fundação Neotrópica do Brasil - NEOTRÓPICA	Ecodesenvolvimento no entorno do PARNA Serra da Bodoquena - MS	80.000,00	26.000,00
12	Entorno de UC´s - Chamada I	Fundação Pró-natureza - FUNATURA	Elaboração do PDS do entorno do PARNA Grande Sertão Veredas/MG	80.000,00	25.600,00
13	Entorno de UC´s - Chamada I	Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis – IBAMAGerência Executiva no Estado do Amapá	Uso racional do entorno do PARNA Cabo Orange	79.139,00	55.646,00
14	Entorno de UC´s - Chamada I	Instituto de Pesquisa	Diretrizes para uso sustentável do entorno do PARNA de Chapada dos Guimarães	78.940,00	27.332,00

		Matogrossense - IPEM			
15	Entorno de UC´s - Chamada I	Instituto para o Desenvolvimento de Energias Alternativas e Auto Sustentabilidade - IDEAAS	Desenvolvimento sustentável do entorno da Reserva Biológica do Ibirapuitã - RS	80.000,00	26.790,00
16	Entorno de UC´s - Chamada I	Núcleo de Educação e Monitoramento Ambiental – NEMA	Desenvolvimento sustentável para as comunidades da área do entorno da ESEC do Taim	51.971,00	17.377,00
17	Entorno de UC´s - Chamada I	Sociedade de Investigações Florestais – SIF	Plano de Desenvolvimento Sustentável para o entorno do PE Serra Santa Bárbara	79.480,00	20.450,00
18	Entorno de UC´s - Chamada I	Sociedade de Investigações Florestais – SIF	Plano de Desenvolvimento Sustentável para o entorno do PE Serra de Ricardo Franco	74.080,00	20.050,00
19	Entorno de UC´s - Chamada I	Universidade Estadual de Ponta Grossa – UEPG	Conservação das Paisagens Remanescentes e Desenvolvimento Sustentável na área de Entorno do PE Vila Velha nos Campos Gerais do Paraná	79.600,00	99.600,00
20	Entorno de UC´s - Chamada II	Fundação Neotrópica do Brasil - NEOTRÓPICA	Implementação das ações prioritárias do Plano de Ecodesenvolvimento no entorno do PARNA Serra da Bodoquena	399.716,00	124.428,00
21	Entorno de UC´s - Chamada II	Fundação Pró-natureza - FUNATURA	Implementação do Plano de Desenvolvimento Sustentável do entorno do Parque Nacional Grande Sertão Veredas	399.910,00	152.400,00
22	Entorno de UC´s - Chamada II	Instituto para o Desenvolvimento de Energias Alternativas e Auto Sustentabilidade - IDEAAS	Plano de desenvolvimento sustentável para o entorno da Reserva Biológica do Ibirapuitã	147.270,00	81.200,00
23	Entorno de UC´s - Chamada II	Núcleo de Educação e Monitoramento Ambiental – NEMA	Ações prioritárias à sustentabilidade das comunidades do entorno da Estação Ecológica do Taim	399.683,00	100.589,00
24	Estudos Especiais	Associação Nacional de Centros de Pós-Graduação em Economia - ANPEC	Treinamento e Elaboração de Estudos de Análise Econômica para Valoração da Biodiversidade	107.380,00	-
25	Estudos Especiais	Conservation International do Brasil	Revisão da Lista Oficial das Espécies da Fauna Brasileira Ameaçadas de Extinção	140.500,00	
26	Estudos Especiais	EMBRAPA - CENARGEN	Realização de levantamento para a identificação das instituições envolvidas com a conservação Ex Situ, On Farm e In Situ de recursos genéticos da flora, da fauna e dos microrganismos, definição da representatividade de cada coleção, em termos de espécies	99.608,00	67.200,00
27	Estudos Especiais	Fundação Biodiversitas	Livro Vermelho das Espécies da Fauna Brasileira Ameaçada de Extinção	280.000,00	154.260,00
28	Estudos Especiais	Fundação de Apoio à Universidade de São Paulo – FUSP	Biodiversidade e Comunidades Tradicionais no Brasil no Contexto da Convenção sobre Diversidade Biológica	72.883,00	-
29	Estudos Especiais	Fundação de Apoio ao Desenvolvimento da Universidade Federal de	Projeto Piloto de Monitoramento de Recifes de Coral	99.907,00	250.000,00

		Pernambuco – FADE			
30	Estudos Especiais	Fundação Universidade de Brasília	Proposta para a elaboração de material educativo e instrucional sobre biodiversidade brasileira, espécies da fauna brasileira ameaçada de extinção, fragmentação de ecossistemas, biomas brasileiros, espécies invasoras e unidades de conservação	279.970,28	226.333,00
31	Estudos Especiais	Instituto de Estudos Sócio-Ambientais do Sul da Bahia – IESB	Projeto piloto para implementação da iniciativa internacional para conservação e uso sustentável dos polinizadores	85.662,52	3.764,27
32	Estudos Especiais	Kanindé - Associação de Defesa Etno-Ambiental	Revisão e Análise das Metodologias Existentes para o Planejamento, Implementação, Monitoramento e Gestão de Corredores Ecológicos e Elaboração de Roteiro Metodológico	149.963,00	63.380,00
33	Fragmentação de Habitats	Associação Mico-leão-dourado	Conservação, manejo e restauração de fragmentos de Atlantic Forestno estado do Rio de Janeiro: mamíferos como táxon focal para a formulação de estratégias.	596.204,64	1.572.295,50
34	Fragmentação de Habitats	EMBRAPA - ACRE	Efeito do Processo de Fragmentação Florestal na Sustentabilidade de alguns Ecossistemas Periféricos aos Eixos Rodoviários no Sudeste Acreano	444.618,72	177.700,00
35	Fragmentação de Habitats	Fundação BIO-RIO	A fragmentação e a qualidade da dieta do primata folívoro endêmico da floresta atlântica	453.757,56	526.064,00
36	Fragmentação de Habitats	Fundação de Amparo e Desenvolvimento da Pesquisa – FADESP	Efeito da Fragmentação de Áreas Úmidas nas Populações de Aves Limícolas Migratórias Intercontinentais: uma análise sobre os corredores migratórios no norte do BR	300.483,22	455.820,30
37	Fragmentação de Habitats	Fundação de Amparo e Desenvolvimento da Pesquisa – FADESP	Efeitos da fragmentação de habitat sobre populações de mamiferos no médio e baixo Tapajós, Pará.	401.723,99	244.225,47
38	Fragmentação de Habitats	Fundação de Apoio a Recursos Genéticos e Biotecnologia Dalmo Catauli Giacometti	Estratégia para conservação e manejo de biodiversidade: fragmentos de florestas semidecíduas	597.673,45	950.090,00
39	Fragmentação de Habitats	Fundação de Apoio Institucional ao Desenvolvimento Científico e Tecnológico – FAI-UFSCar	Fragmentação natural e artificial de rios: comparação entre os lagos do médio Rio Doce (MG) e as represas do médio Tietê (SP)	449.402,60	-
40	Fragmentação de Habitats	Fundação de Desenvolvimento da Pesquisa - FUNDEP	Estudos de conservação e recuperação de fragmentos florestais da APA de Camanducaia	555.123,35	360.000,00
41	Fragmentação de Habitats	Fundação de Desenvolvimento da Pesquisa - FUNDEP	Efeitos temporais e espaciais da fragmentação de habitats em populações de insetos e pássaros: subsídios para o manejo e conservação de florestas.	360.086,78	242.600,00
42	Fragmentação de Habitats	Fundação de Empreendimentos Científicos e Tecnológicos – FINATEC	Estrutura e dinâmica da biota de isolados naturais e antrópicos do cerrado	599.045,12	291.000,00
43	Fragmentação de Habitats	Fundação de Pesquisas Florestais - FUPEF	Conservação do bioma floresta com araucária	561.884,12	124.000,00
44	Fragmentação de Habitats	Fundação Pau Brasil - FUNPAB	Remanescentes de florestas na região de Una - RESTAUNA	440.806,08	400.000,00
45	Fragmentação de Habitats	Fundação Universitária José	A fragmentação sutil, um estudo na mata atlântica	597.830,30	1.790.030,47

		Bonifácio - FUJB			
46	Fragmentação de Habitats	Instituto de Estudos Sócio-Ambientais do Sul da Bahia – IESB	Abordagens ecológicas e instrumentos econômicos para o estabelecimento do corredor do descobrimento: uma estratégia para reverter a fragmentaçao florestal na Atlantic Forestdo sul da Bahia.	457.868,96	680.254,00
47	Fragmentação de Habitats	Instituto de Pesquisas Ecológicas – IPÊ	Ilhas de biodiversidade como corredores na restauração da paisagem fragmentada do Pontal do Paranapanema, São Paulo	449.014,00	125.400,00
48	Informe sobre espécies exóticas invasoras	EMBRAPA Recursos Genéticos e Tecnologia	Informe sobre espécies exóticas invasoras – sistemas de produção da agricultura, pecuária e silvicultura	150.000,00	1.695.688,40
49	Informe sobre espécies exóticas invasoras	Fundação Arthur Bernades (FUNARBE)	Informe sobre espécies invasoras que afetam as águas continentais (Fauna, Flora e Microorganismos)	147.574,80	36.894,00
50	Informe sobre espécies exóticas invasoras	Fundação de Estudos e Pesquisas Aquáticas - FUNDESPA	Organismos que afetam o ambiente marinho	149.776,40	138.785,00
51	Informe sobre espécies exóticas invasoras	Fundação para o Desenvolvimento Científico e Tecnológico em Saúde - FIOTEC	Espécies exóticas invasoras que afetam a saúde humana	149.841,00	1.268.952,22
52	Informe sobre espécies exóticas invasoras	Instituto de Conservação Ambiental The Nature Conservancy do Brasil - TNC	Informe sobre espécies exóticas invasoras: organismos que afetam o ambiente terrestre	149.974,00	67.000,00
53	Inventários	Associação Caatinga	Análise das variações da biodiversidade da caatinga como o apoio de sensoriamento remoto e sistema de informações geográficas para suporte de estratégias regionais de conservação	248.825,29	695.964,00
54	Inventários	Associação Plantas do Nordeste - APNE	Chapada Diamantina: biodiversidade	329.723,00	83.000,00
55	Inventários	Conservation International do Brasil	Inventário biológico nos vales dos rios Jequitinhonha e Mucuri nos estados de Minas Gerais e Bahia	385.770,18	718.622,00
56	Inventários	Fundação de Amparo e Desenvolvimento da Pesquisa - FADESP	Paisagens e Biodiversidade: uma perspectiva integrada para inventário e conservação da Serra do Cachimbo	312.356,00	341.222,00
57	Inventários	Fundação de Amparo e Desenvolvimento da Pesquisa - FADESP	Diversidade de vertebrados no Alto Rio dos Marmelos (BX 044)	229.406,00	133.260,00
58	Inventários	Fundação de Apoio à Vida nos Trópicos - ECOTRÓPICA	Inventários da biodiversidade na Serra do Amolar	156.649,61	61.423,00
59	Inventários	Fundação de Apoio ao Desenvolvimento da Universidade Federal de	Composição, riqueza e diversidade de espécies do Centro de Endemismo Pernambuco	379.912,27	110.700,00

		Pernambuco – FADE			
60	Inventários	Fundação de Empreendimentos Científicos e Tecnológicos – FINATEC	Inventário da Biodiversidade do Vale e Serra do Paranã e do Sul de Tocantins	329.771,00	577.605,00
61	Inventários	Fundação de Empreendimentos Científicos e Tecnológicos – FINATEC	Inventário da biota aquática com vistas a conservação e utilização sustentável do bioma cerrado (Serra e vale do Rio Paranã)	229.857,60	1.086.505,00
62	Inventários	Fundação Universidade do Estado de Mato Grosso - UNEMAT	Inventário Zoobotânico do Rio das Mortes-MT	127.359,00	116.500,00
63	Inventários	Fundação Universidade Federal de Mato Grosso do Sul - UFMS	Inventário da diversidade biológica do Complexo Jauru	389.108,00	395.628,00
64	Inventários	Fundação Universitária José Bonifácio - FUJB	Diversidade de vertebrados do Pantepui - AM	237.012,00	1.081.666,00
65	Inventários	Fundação Zoobotânica do Rio Grande do Sul - FZRGS	Avaliação da diversidade na Lagoa do Cerro, na Lagoa do Casamento e em seus ecossistemas associados, Zona Costeira, Rio Grande do Sul	185.303,18	154.100,00
66	Inventários	Instituto de Pesquisas Científicas do estado do Amapá - IEPA	Inventário Biológico das Áreas Sucuriju e Região dos Lagos, Amapá	149.840,00	50.000,00
67	Inventários	Instituto Driádes de Pesquisa e Conservação da Biodiversidade	Biota das Florestas do Planalto de Conquista, Sudoeste da Bahia	265.830,48	226.680,00
68	Inventários	Instituto Nacional de Pesquisas da Amazônia - INPA	Inventário faunístico na área do médio Madeira	340.936,00	1.853.950,00
69	Inventários	Museu Paraense Emílio Goeldi - MPEG	Avaliação ecológica e seleção de áreas prioritárias à conservação de savanas amazônicas, arquipélago do Marajó, Estado do Pará	120.000,00	319.535,00
70	Inventários	Universidade do Estado do Rio de Janeiro - UERJ	RAP Ilha Grande: um levantamento da biodiversidade	150.000,00	205.753,00
71	Inventários	Universidade Federal do Ceará - Departamento de Biologia	Biota marinha da costa oeste do Ceará	84.014,00	115.500,00
72	Inventários	Universidade Federal do Rio Grande do Sul	Biodiversidade dos Campos do Planalto das Araucárias	211.293,00	186.672,00

73	Manejo de Espécies Ameaçadas de Extinção	Fundação Biodiversitas	Manejo e conservação do muriqui em Minas Gerais	356.548,00	137.142,00
74	Manejo de Espécies Ameaçadas de Extinção	Fundação Centro Brasileiro de Proteção e Pesquisa das Tartarugas Marinhas - Pró-Tamar	Plano de manejo da tartaruga de pente	353.906,00	136.050,00
75	Manejo de Espécies Ameaçadas de Extinção	Fundação de Amparo e Desenvolvimento da Pesquisa – FADESP	O status das aves endêmicas da Amazônia Oriental	239.990,00	132.600,00
76	Manejo de Espécies Ameaçadas de Extinção	Fundação de Apoio a Pesquisa e Extensão - FUNAPE	Biologia, Parâmetros Populacionais e Análise do Comércio de Cavalos Marinhos	282.633,00	358.794,00
77	Manejo de Espécies Ameaçadas de Extinção	Fundação de Desenvolvimento da Pesquisa - FUNDEP	Elaboração de Plano de Manejo para a Uruçu Amarela	347.883,28	366.243,00
78	Manejo de Espécies Ameaçadas de Extinção	Fundação de Empreendimentos Científicos e Tecnológicos - FINATEC	Conservando *Caprimulgus candicans* no Brasil	239.117,00	132.100,00
79	Manejo de Espécies Ameaçadas de Extinção	Fundação de Empreendimentos Científicos e Tecnológicos - FINATEC	Plano de Manejo para *Lonchophylla dekeyseri*	239.978,00	83.650,00
80	Manejo de Espécies Ameaçadas de Extinção	Fundação de Estudos e Pesquisas em Agronomia, Medicina Veterinária e Zootecnica – FUNEP	Ecologia e Distribuição de *Mazama bororo*	253.168,94	406.800,00
81	Manejo de Espécies Ameaçadas de Extinção	Fundação para o Desenvolvimento Científico e Tecnológico em Saúde - FIOTEC	Estratégias de conservação para a Toninha (*Pontoporia blanvillei*) nas áreas de manejo I e II: buscando alternativas para salvar uma espécie	240.000,00	275.040,00
82	Manejo de Espécies Ameaçadas de Extinção	Fundação Universidade do Amazonas - FUA	Estudos de Ecologia e Genética para a Conservação do Macaco *Saguinus*	298.352,00	264.000,00
83	Manejo de Espécies Ameaçadas de Extinção	Fundação Universidade Federal do Rio Grande - FURG	Salvar Seláquios do Sul do Brasil	277.921,56	126.160,00
84	Manejo de Espécies Ameaçadas de Extinção	Instituto de Estudos Sócio-Ambientais do Sul da Bahia – IESB	Avaliação das Populações do Macaco Prego do Peito Amarelo	294.540,00	131.877,00
85	Manejo de Espécies Ameaçadas de	Instituto de Pesquisa da Atlantic Forest- IPEMA	Viabilidade Populacional do Muriqui	232.063,00	70.824,00

	Extinção				
86	Manejo de Espécies Ameaçadas de Extinção	Instituto de Pesquisa da Atlantic Forest- IPEMA	Variabilidade populacional do Muriqui - *Brachyteles hypoxanthus* (Primates, Atelidae), em fragmentos de Atlantic Forestno estado do Espírito Santo - Fase II	349.284,00	211.000,00
87	Manejo de Espécies Ameaçadas de Extinção	Instituto Dríades de Pesquisa e Conservação da Biodiversidade	Proposta de Elaboração do Plano de Manejo de *Dinoponera lucida* Emery, a formiga gigante do corredor central da Mata Atlântica	239.861,00	123.764,00
88	Manejo de Espécies Ameaçadas de Extinção	Instituto Dríades de Pesquisa e Conservação da Biodiversidade	Conservação de *Brachyteles*: uma síntese da ecologia do gênero e um plano de ação para a Estação Biológica de Caratinga, MG	359.398,00	168.426,00
89	Manejo de Espécies Ameaçadas de Extinção	Núcleo de Educação e Monitoramento Ambiental	Manejo e conservação das tartarugas marinhas	243.217,00	90.850,00
90	Manejo de Espécies Ameaçadas de Extinção	Pontífica Universidade Católica do Paraná - PUCPR	Sassafrás: Bioecologia e Uso Sustentável	442.064,00	326.512,00
91	Manejo de Espécies Ameaçadas de Extinção	Universidade Federal Rural do RJ - FAPUR	Anfíbios de altitude do Itatiaia	240.000,00	466.000,00
92	Manejo de Espécies Invasoras	EMBRAPA - CPAR	Búfalos Selvagens da Rebio do Vale do Guaporé	224.669,00	75.331,00
93	Manejo de Espécies Invasoras	EMBRAPA SEMI-ÁRIDO	Manejo de Áreas Invadidas por Algarobeiras	210.293,00	341.304,00
94	Manejo de Espécies Invasoras	Fundação de Apoio Institucional ao Desenvolvimento Científico e Tecnológico – FAI-UFSCar	Monitoramento e Desenvolvimento de Tecnologias para o Manejo de Espécies Exóticas em Águas Doces	333.074,00	316.800,00
95	Manejo de Espécies Invasoras	Fundação de Empreendimentos Científicos e Tecnológicos – FINATEC	Plano de Manejo de *Tupinambis merianae*	329.627,74	123.601,00
96	Manejo de Espécies Invasoras	Universidade Federal do Mato Grosso do Sul - UFMS	Manejo de *Gomphrena elegans* em Bonito	299.042,00	103.460,00
97	Manejo de Espécies Invasoras	Universidade Regional de Blumenau - FURB	Estudo de Agentes para Controle de *Tecoma stans*	298.491,00	504.812,00
98	Manejo de Polinizadores (02/2003 e 01/2004)	Centro de Pesquisa Agropecuária do Trópico Semi-Árido – Embrapa Semi-Árido	Diagnóstico de polinizadores no vale do São Francisco	108.795,00	231.002,00

99	Manejo de Polinizadores (02/2003 e 01/2004)	Fund. Escola Politécnica da Bahia	Plano de Manejo para Polinizadores de Fruteiras	149.354,00	184.116,00
100	Manejo de Polinizadores (02/2003 e 01/2004)	Fundação da Universidade Federal do Paraná para o Desenvolvimento da Ciência, da Tecnologia e da Cultura - FUNPAR	Polinizadores de maracujá no Paraná: diversidade de espécies e seu uso sustentável na agricultura	148.238,00	90.940,00
101	Manejo de Polinizadores (02/2003 e 01/2004)	Fundação de Apoio à Pesquisa e ao Desenvolvimento Agropecuário e Florestal da Amazônia - FUNAGRI	Manejo de polinizadores autóctones de açaizeiro (*Euterpe oleracea* Mart.) na Amazônia Oriental	125.667,00	90.320,00
102	Manejo de Polinizadores (02/2003 e 01/2004)	Fundação de apoio ao desenvolvimento da Universidade Federal de Pernambuco - FADE	Diagnóstico e manejo dos polinizadores de algodoeiro e gravioleira	149.871,96	83.790,00
103	Manejo de Polinizadores (02/2003 e 01/2004)	Fundação de Apoio ao Desenvolvimento da Universidade Federal de Pernambuco – FADE	Diagnóstico e manejo dos polinizadores de mangabeira e aceroleira	89.842,76	337.490,00
104	Manejo de Polinizadores (02/2003 e 01/2004)	Fundação de Apoio Universitário - Universidade Federal de Uberlândia	Manejo sustentável de *Xylocopa* spp. (Apidae, Xylocopini), polinização e produção do maracujá-amarelo (*Passiflora edulis f. flavicarpa*) no triângulo mineiro	146.008,00	50.334,00
105	Manejo de Polinizadores (02/2003 e 01/2004)	Fundação Djalma Batista	Polinização do Cupuaçu (*Theobroma grandiflorum*, Sterculiaceae) na Amazônia Central: Desenvolvimento de Técnicas para manejo dos plantios e dos polinizadores	57.900,00	52.400,00
106	Manejo de Polinizadores (02/2003 e 01/2004)	Fundação Norte Fluminense de Desenvolvimento Regional - FUNDENOR	Polinizadores de maracujá no norte fluminense	58.221,00	59.800,00
107	Manejo de Polinizadores (02/2003 e 01/2004)	Fundação Souzandrade de Apoio ao Desenvolvimento da UFMA - FSADU	Polinizadores do murici (Byrsonima crassifolia, Malpighiaceae) em áreas nativas, Maranhão: diversidade de espécies, nidificação e seu uso sustentável na agricultura	129.574,00	42.700,00
108	Manejo de Polinizadores (02/2003 e 01/2004)	Instituto de Pesquisa da Atlantic Forest- IPEMA	Manejando *Melipona quadrifasciata* em cultivos protegidos de tomate: uma alternativa conservacionista	149.956,00	155.500,00
109	Manejo de Polinizadores (02/2003 e 01/2004)	Universidade do Estado do Mato-Grosso - UNEMAT	Polinizadores de araticum (Anonnaceae) no cerrado mato-grossense	102.674,00	46.664,00
110	Manejo de	Universidade	Manejo agrícola e riqueza de polinizadores	149.967,00	90.450,00

	Polinizadores (02/2003 e 01/2004)	Estadual Paulista - UNESP			
111	Mapeamento de remanescentes (02/2004)	Associação Plantas do Nordeste - APNE	Levantamento da cobertura vegetal e do uso do solo do bioma caatinga	355.975,36	619.450,00
112	Mapeamento de remanescentes (02/2004)	Empresa Brasileira de Pesquisa Agropecuária - Embrapa Informática Agropecuária - CNPTIA	Levantamento e mapeamento dos remanescentes da cobertura vegetal do bioma Pantanal, periodo de 2002, na escala de 1:250.000	139.850,00	261.539,00
113	Mapeamento de remanescentes (02/2004)	Fundação de apoio à Pesquisa e ao Agronegócio - FAGRO	Levantamento dos remanescentes da cobertura vegetal do bioma cerrado	682.663,00	235.600,00
114	Mapeamento de remanescentes (02/2004)	Fundação de Apoio da Universidade Federal do Rio Grande do Sul - FAURGS	Remanescentes do bioma Campos Sulinos	145.528,00	56.800,00
115	Mapeamento de remanescentes (02/2004)	Fundação de Ciência, Aplicações e Tecnologia Espaciais - FUNCATE	Uso e cobertura da terra na Floresta Amazônica	599.931,11	178.570,00
116	Mapeamento de remanescentes (02/2004)	Instituto de Estudos Socioambientais do Sul da Bahia - IESB	Mapeamento do bioma Atlantic Foreste implementação de uma base de dados em ambiente de sistema de informações geográficas	450.000,00	212.290,00
117	Mudanças climáticas	Centro de Previsão de Tempo e Estudos Climáticos – CPTEC/INPE	Caracterização do Clima Atual e Definição das Alterações Climáticas para o Território Brasileiro ao Longo do Século XXI	276.866,00	1.226.172,00
118	Mudanças climáticas	Fundação Brasileira para o Desenvolvimento Sustentável - FBDS	Mudanças Climáticas Globais e seus Impactos sobre os Ecossistemas Brasileiros	254.066,00	23.710,00
119	Mudanças climáticas	Fundação Dalmo Giacometti	Levantamento de indicadores sensíveis a parâmetros climáticos no Pantanal	98.910,00	200.736,00
120	Mudanças climáticas	Fundação de Apoio à Universidade do Rio Grande - FAURG	Estudo de caso da Ilha dos Marinheiros, estuário da Laguna dos Patos, RS, Brasil: Diagnóstico Ambiental, Modelo de Elevação Digital e Avaliação da Vulnerabilidade Frente a Cenários de Elevação do Nível do Mar	74.724,00	332.000,00
121	Mudanças climáticas	Fundação de Estudos e Pesquisas Aquáticas - FUNDESPA	Os Efeitos da Elevação do nível do Mar Decorrentes do Aquecimento Global da Atmosfera, nos Ecossistemas Brasileiros: O sistema Cananéia Iguape, Litoral Sul do Estado de São Paulo	99.172,00	79.845,00
122	Mudanças climáticas	Fundação Euclides da Cunha de Apoio à Universidade Federal Fluminense	Diagnóstico da saúde ambiental de ecossistemas recifais da costa brasileira com a utilização de foraminíferos bentônicos	99.931,40	1.320.800,00
123	Mudanças climáticas	Fundação Universidade Federal do Rio Grande	A diversidade e abundância de peixes em zonas rasas estuarinas como indicadores sensíveis a parâmetros climáticos regionais e globais: os estuários do Rio Grande do Sul como um estudo de caso	99.205,69	167.600,00
124	Mudanças	Fundação	PROBAC - Proteínas de choque térmico como bioindicadoras de	89.117,00	516.120,00

	climáticas	Universidade Federal do Rio Grande	alteração climática		
125	Mudanças climáticas	Fundação Universidade Federal do Rio Grande	Diagnóstico de alterações devido ao impacto das mudanças climáticas sobre o ecossistema costeiro temperado brasileiro (Rio Grande do Sul) através da vegetação e do macrozoobentos	67.472,16	66.500,00
126	Parentes Silvestres	Centro Nacional de Pesquisa do Algodão - Embrapa Algodão	Prospecção e caracterização de populações das espécies do gênero Gossypium nativas ou naturalizadas do Brasil	99.917,19	122.000,00
127	Parentes Silvestres	Embrapa Agroindústria Tropical	Identificação e mapeamento da distribuição geográfica e caracterização da diversidade biológica das espécies brasileiras da Anacardium (Anacardiaceae), com vistas à conservação dos parentes silvestres e das raças locais ou variedades crioulas do cajueiro	75.000,00	114.030,00
128	Parentes Silvestres	Embrapa Arroz e Feijão	Coleta, Conservação e Análise de Variedades Tradicionais e Espécies Silvestres de Arroz no Brasil	73.651,00	25.170,00
129	Parentes Silvestres	Embrapa Milho e Sorgo	Identificação de variabilidade existente em bancos de germoplasma de milho no Brasil e comparação com a coleção mantida na Embrapa	68.927,50	50.000,00
130	Parentes Silvestres	EMBRAPA Recursos Genéticos e Tecnologia	Identificação e mapeamento da distribuição geográfica e caracterização da diversidade biológica das espécies brasileiras de *Arachis* (Leguminosae), com vistas à conservação dos parentes silvestres e das raças locais ou variedades crioulas do amendoim (*Arac*	75.885,94	62.200,00
131	Parentes Silvestres	EMBRAPA Recursos Genéticos e Tecnologia	Diagnóstico participativo sobre distribuição geográfica, condições de conservação e diversidade genética de *Cucurbita* spp	74.966,66	24.988,89
132	Parentes Silvestres	EMBRAPA Recursos Genéticos e Tecnologia	Identificação, mapeamento, avaliação das condições de conservação, proposição de uso e de medidas de conservação a curto, médio e longo prazo para espécies silvestres, raças locais ou variedades crioulas do gênero *Manihot*.	75.000,00	98.240,00
133	Parentes Silvestres	Fundação Djalma Batista	Pupunha - raças primitivas e parentes silvestres	87.345,52	40.975,00
134	Plantas do Futuro	Associação Plantas do Nordeste - APNE	Espécies da Flora Nordestina de Importância Econômica Potencial	277.971,60	94.175,00
135	Plantas do Futuro	Embrapa Recursos Genéticos e Biotecnologia - Embrapa Cenargen	Projeto Plantas do Futuro - Região Centro-Oeste	279.947,00	102.000,00
136	Plantas do Futuro	Fundação Biodiversitas para a Conservação da Diversidade Biológica	Identificação e divulgação de informações sobre espécies da flora de importância econômica atual ou potencial, para uso direto e ou para ampliar a utilização comercial, com vistas a fomentar o desenvolvimento de produtos voltados para o mercado interno e	279.591,34	94.042,00
137	Plantas do Futuro	Fundação de Amparo à Pesquisa e Extensão	Identificação e divulgação de informes sobre espécies da flora da Região Sul de importância econômica atual ou potencial para uso direto e ou para ampliar a utilização comercial, com vistas a	279.429,33	183.528,00

		Universitária - FAPEU	fomentar o desenvolvimento de produtos voltados para o mercado		
138	Plantas do Futuro	Museu Paraense Emílio Goeldi – MPEG	A flora de importância econômica atual ou potencial na região norte	275.840,88	92.000,00
139	Rede de informação	Fundação André Tosello	Rede de informação em biodiversidade	1.494.200	565.000,00
140	Subprojetos inciais	Embrapa-Cenargen	Conservação de recursos fitogenéticos	599.900,00	2.300.000,00
141	Subprojetos inciais	Fundação de Apoio ao Desenvolvimento da Universidade Federal de Pernambuco – FADE	Recuperação e Manejo dos Ecossistemas Naturais de Brejos de Altitude de Pernambuco e Paraíba	731.400,00	1.716.000,00
142	Subprojetos inciais	Fundação de Empreendimentos Científicos e Tecnológicos – FINATEC	Conservação e Recuperação da Biodiversidade em Matas de Galeria do Bioma Cerrado	838.056,34	1.234.000,00
143	Subprojetos inciais	Fundação Universitária José Bonifácio - FUJB	Conservação e Recuperação da Atlantic Forestde Tabuleiros, com Base na Avaliação Funcional da Biodiversidade, em Linhares, ES	722.200,00	2.737.000,00
144	Subprojetos inciais	Sociedade de Pesquisa em Vida Selvagem e Educação Ambiental - SPVS	Gerenciamento de área especial para a região de Guaraqueçaba - Parana.	770.593,50	1.556.000,00

Additional Annex 9. Protected Areas Created After PROBIO Priority Area Workshops

Biome	Year	Protected Area Name	Name of Priority Area	Área in hectares
GQRGDUUH& OODQDWQD3		VDOODWQHLEP $ RmoHWRU3 HGDHUÈ i EDLX& RO5 RGVDUUHFHED&	VUUHFHED& VDG$ 3 $ 7 0 i EDLX& RO5 RG	
GQRGDUUH& OODQDWQD3		i URFQL6 RGVDGQHWQR& OODQRLFD1 DWHURO)	i FDUD0 HGVHURGHUL$ $ %	
GQRGDUUH& OODQDWQD3		DLOVDU%HGOODQRLFD1 DWHURO)	GQOODUHGH) RWLWWL') ' RQURWQ(	
GQRGDUUH& OODQDWQD3		DUDEUi %DWQD6 HGDUUH6 ODXGDW(HXTUD3	UDEUi %DWQD6 HGDUUH6 7 0	
GQODWDR& HQR= HQLUD0		LHOD%OODWQHLEP $ RmoHWRU3 HGDHUÈ DFQDU)	DFQDU) DLHOD%	
GQRGDUUH& OODQDWQD3		DQHXTRGR%DGDUUH6 OODQRLFD1 HXTUD3	DTRGR%DGDUUH6 6 0	
DLQ[ ] DP $		i FDXDUD7 RW$ DWLYLWDUW[(DYUHVH5	& $ i FDXDUD7 RO5	
GQODWDR& HQR= HQLUD0		DEtDQUD3 RGDWOH' DWLYLWDUW[(DYUHVH5	L5 RG$ 3 $ HWQLGXOVQLDEtDQUD3 RDWOH' QRLJHU DURWVHKFRDWEtDQUD3 VDKQLXTRUUD%HG	
GQODWDR& HQR= HQLUD0		XDEP XUR& RGDWQR3 DWLYLWDUW[(DYUHVH5	tDUD& DXDEP XUR& $ %	
LWQDOW$ GQWHUR) VRQLOX6 VRSP D&		DGQ] D) OODWQHLEP $ RmoHWUR3 HGDHUÈ RGUDXG(RmWSD&	* 0 HWQR] LUR+ RO HP%	
LWQDOW$ GQWHUR) VRQLOX6 VRSP D&		HDLFD%OODWQHLEP $ RmoHWRU3 HGDHUÈ DP L& HGpDFD0	- 5 RJUXELL) DYR1	
GQODWDR& HQR= HQLUD0		RDLFD%OODWQHLEP $ RmoHWRU3 HGDHUÈ XHP ROR WUD%Rm6 HUER&	$ %URGDYOD6	
LWQDOW$ GQWHUR) VRQLOX6 VRSP D&		HGUH9 RO5 RGOODWQHLEP $ RmoHWRU3 HGDHUÈ	5 3 RJUD/ RSP D&	
GQODWDR& HQR= HQLUD0		VLFH5 VRGOODWQHLEP $ RmoHWRU3 HGDHUÈ OOUR& HG	1 5 HSDXJQDUD[D0	HHUFHGR1 DUDHQLUDP
DJ QLWDD&		UGH3 OODWQHLEP $ RmoHWRU3 HGDHUÈ DQLUDWDD& DGRVD5 DFQDU%	$ %DQLUDWDD& DGRVD5	
GQRGDUUH& OODQDWQD3		RW$ RVXR3 OODWQHLEP $ RmoHWRU3 HGDHUÈ	2 * RW$ RVXR3	
DLQ[ ] DP $		RLJ yOR F(HVVHUHWQ, HWQDYHOH5 HGDHUÈ DoQDUHSV(DYR1 ODJ QLUH6	& $ LUXSD;	
DJ QLWDD&		RmKQDWDD& DFLJ yORF(RmoDW(	LUDXJD- R[LD% LRS$ RGDGDSDK& & HELUDXJD-	
VHUR) FLWQDOW$ VRP D& GQD VRQLOX6		LFLUX0 HGDFLJ yORF(RmoDW(	/ $ LFLUX0	
DLQ[ ] DP $		mLQX& RGDFLJ yORF(RmoDW(	WLYLWDUW[(DWHURO) GQXFD- RWLU3 RO5 HDWHURO)	

			VQHP LYORYQHVH L5 RGOMYi VQHWX6 L5 RG3 DUHGO L5 RG3 mLQ& HDWHURQ) DUHGO VQHP LYORYQHVH L5 RGOMYi VQHWX6 UH6 ((RKOP UH9 VWR3 VRmP U,Vr U7 VRG 2 RKOH9	
GQRGUH& OQDWQD3		RDUH* DUH6 DFLJyORF(RmoDW(VQLVQDFR7	27 VRUHWO	
LQ[]DP$ GQRGUH& OQDWQD3		DWX0 HGOQRLFO DWHURQ)	VjDP$ RLGp0 VQR0 HGVRSP D& UJHG$ HVQR0 HUJHG$ $	
DLQ[]DP$		RDVR5 DWQ6 HGOQRLFO DWHURQ) VXUX3	&$ VXUX3 RV@	
DLQ[]DP$		RFVLFQDUj Rm6 HGOQRLFO DWHURQ)	WXGDRP D0 ,7 VHG0 RFLK&[HVH5 UX3 RL5 VXUX3 RV@ DQ6 mXDFO RG1) & DUHUXGO	
DLQ[]DP$		RFVLFQDUj Rm6 HGOQRLFO DWHURQ)	&$ DUHUXGO DQH6	
DJQLWX&.		OUER6 HGOQRLFO DWHURQ)	UF$ RL5 RGLFO% L5 RGLFO% DDUH6 XoDLWFDQ$ & OUER6 DFRXH0	
DLQ[]DP$		VXUX3 RGVR5 DWQ6 OQRLFO DWHURQ)	V@ ,7 VXUX3 RV@ VUX3 RL5 VXUX3 VUX3 RGVR5 DWQ6	
VHUR) FLWQDO@ VRP D& GQD DWR& VRQLX6 HQR=HQLUO GQD		HVDLVpO) VDGOUXW1 RWQHP XQR0 HELUHEH%	UH&HELUXJD-R[LD% HXT5 Rm6 HGRED&RW (&	
DJQLWX&.		VQHJDVVD3 HW6 VDGOXGDW(HXTUD3	$%QRP O&OHXJL0	
DLQ[]DP$		XJQL; RGOXGDW(HXTUD3	DQLU-RWRSD&,7	
VHUR) FLWQDO@ VRP D& GQD VRQLX6		LQDUX* RL5 OXGDW(HXTUD3	53 LQDUX* RL5	
DLQ[]DP$		DLW&DGUH6 OQRLFO HXTUD3	LUO iUDWX* HG(3 VWL3 RUX2 RL5 [HVH5 &PLUO iUDWX*	
DLQ[]DP$		RVRLQ[OHX4 HUW-HYO6 DG9 HGRLJ~IH5 DLDXJDL$	70 RKQLODFR&	
DLQ[]DP$		iQDUD3 LWX$ DWLYLWXU[W(DYUHVH5	0$iUKSD-	
GQODWR& HQR=HQLUO		HUXR6 HGOKQLUO DWLYLWXU[W(DYUHVH5	$3 HUXR6	
DLQ[]DP$		RLUjVWO&RL5 DWLYLWXU[W(DYUHVH5	25 RLUjVWO&RL5 [(5	

DJQLVWD&		DUXWD1 RLQ{P LWWD3 RGUDQXFLWD3 DYUHVH5 RUURKFD& RGDUGH3	(3 RQDWLD& Rm6	
VHUR) FLWQDQW/ VRP D& GQD VRQLQX6		RDLFD%DGQDWQHLEP $ RmoHVRU3 HGDHUÈ RmH/ RFLO RmR- Rm6 RL5	-5 VRmJÜ VRGDUUH6	
VHUR) FLWQDQW/ VRP D& GQD VRQLQX6		QDVDU9%XD3 RGQDWQHLEP $ RmoHVRU3 HGDHUÈ	-5 RLL) RED&	
GQRGDUUH& QDQDWQD3		WDQDD3 RGQDWQHLEP $ RmoHVRU3 HGDHUÈ QDUWQH&	GQDUWQH& RWDQDD3) ' RQURWQ(	
LWQDQW/ GQWHUR) VRQLQX6 VRSP D&		VHQD- QDWQHLEP $ RmoHVRU3 HGDHUÈ DJQDWS,	RVHQDR- RGDWD0 $ %DFXWR3	
GQRGDUUH& QDQDWQD3		HWLH/ RmR- QDWQHLEP $ RmoHVRU3 HGDHUÈ	LQkYQ6 DLQkLR* LQkLR* HGDGLFHUDS$ 2 * DGDUXR' DUUH6	
GQRGDUUH& QDQDWQD3		VDDUUH6 QDWQHLEP $ RmoHVRU3 HGDHUÈ DLUDWUR3 DGHVpQD*	WD0 DGDUXR' DUUH6 2 * VLLR* HGRVVRU*	
DJQLVWD&		HRFLJyQRF(HVVHUHVQ HWQDYHQH5 HGDHUÈ DEXGQXP DLR*	%3 ~DWDP LUX&	
GQRGDUUH& QDQDWQD3		VLW$ HGDFLJyQRF(RmoDW(	36 DLQUD0	
VHUR) FLWQDQW/ VRP D& GQD VRQLQX6		RULHKQL3 VHGQDQUH) DFLJyQRF(RmoDW(	X6 RGVXHWD0 Rm6 53	
VHUR) FLWQDQW/ VRP D& GQD VRQLQX6		RWU3 RmH/ RFLO DFLJyQRF(RmoDW(	RQDWQR3 36 DP HQDSDQDUD3	
VHUR) FLWQDQW/ VRP D& GQD VRQLQX6		VRUXR7 VRGRL5 DFLJyQRF(RmoDW(	L5 RLGpO 53 DYDXSDUD* XoDXJ,	
DLQ[ ] DP $		DLDXJDU$ RGQXGDW(DWHURQ)	LDXJDU$ RGRmoLHFQR& $3	
DLQ[ ] DP $		DQDUDXWD- HGQDQRLFD1 DWHURQ)	WDR& DQHJtGQ DUUH7 0 $ QDQDUD/	
DJQLVWD&		VRUXDWVRQL' VRGHQD9 QDUXWD1 RWQHP XQR0	RRmWUH6 RW$ %3 VDKQDUU3	
GQRGDUUH& QDQDWQD3		i EDLX& RGVDXJÈ QDXGDW(HXTUD3	JQ; RL5 RGVDUUHFHED& 70	
DLQ[ ] DP $		DLDXJDU$ RGQXGDW(HXTUD3	LDXJDU$ RGRmoLHFQR& $3	
GQRGDUUH& QDQDWQD3		i UX* RGQXGDW(HXTUD3	RHWH2 DGUR% KQL] LDXJDUD3 QDQDWQD3 70 R	
VHUR) FLWQDQW/ VRP D& GQD VRQLQX6		HUED- RGRFL3 RGQXGDW(HXTUD3	%3 HUED- RGRFL3	
DLQ[ ] DP $		L5 RGVHWQHFVD1 VDGQDQRLFD1 HXTUD3 DEtDQUD3	WHRGX6 RGDGDSDK& tXL3 RmKQDUD0 RG VLWQDFR7 GQD	
GQRGDUUH& QDQDWQD3		VDYL9 HUSP H6 VDGQDQRLFD1 HXTUD3	QD9 GQDDQLWQDP DL' * 0 DKQRKQLWXTH- RG	
VHUR) FLWQDQW/		DUDRFDRFLUH- HGQDQRLFD1 HXTUD3	(& DUDRFDRFLUH-	

VRP D& GQD VRQLQX6				
DJQLWD&		XDEP LWD& RGDQRLFD1 HXTUD3	NRS, RGHD9 HXTtX% (3	
DLQ[ ] DP $		RVDKQDWQR0 QDQRLFD1 HXTUD3 HXTDP XFXP X7	3$ HXTDP XFXP X7	
GQRGDUH& QDQDWQD3		RVDGHU9 HUWHYQ6 DG9 HGRLJ~IH5 RQDLD%HWH2	iLR* RmWH6 HGQDU* HVDQHYD& GQDDIKD% JQLP R' Rm6 %DQWQHUR&	
LQ[ ] DP $ GQDWDR& HQR= HQLUD0		WLYLWDWL[V(DYUHM5 RVVRU* RWD0 pUDRFRK&	VIFQkUWQH5 RGDJQD6 GQVHVQHKQDUD0 $3 VHVQHDUD3	
DLQ[ ] DP $		tDW- R15 RGDWLYLWDWL[V(DYUHM5	0$ tDW- R15	
LQ[ ] DP $ GQDWDR& HQR= HQLUD0		HHGQDU* Hm0 DWLYLWDWL[V(DYUHM5 ioXU&	VIFQkUWQH5 RGDJQD6 GQVHVQHKQDUD0 $3 VHVQHDUD3	
VHUR) FIWQDQW& VRP D& GQD VRQLQX6		DUGQD0 DWLYLWDWL[V(DYUHM5	HSJ, DlpQDQD& 36 HEtXUH3	
LQ[ ] DP $ GQDWDR& HQR= HQLUD0		mQDFDUD0 DWLYLWDWL[V(DYUHM5	DRGRJQ3 RGDKQ, VIFQkUWQH5 RGDJQD6 GQVHVQHKQDUDP $3 VHVQHDUDS	
GQDWDR& HQR= HQLUD0		DWQR3 DGRmR- Rm6 DWLYLWDWL[V(DYUHM5	VIFQkUWQH5 GQVHVQHKQDUD0 $3 VHVQHDUD3	
LWQDQW& GQVHUR) VRP D& VRQLQX6		QDUDU%XD3 RGDFLJyBF(RmoDW(	%3 HSDXJQDP D0	
DLQ[ ] DP $		RGDU3 RGURQ) R15 DFLJyBF(RmoDW(	70 DKQLUHGD0 R15	
GQRGDUH& QDQDWQD3		DQDUDJD6 DFLJyBF(RmoDW(	R6 RW3 RGDLFD% *0 RFVIFQDU)	
VHUR) FIWQDQW& VRP D& GQD VRQLQX6		LLP LD3 RGDXGDW(DWHURQ)	WL3 RUX2 HGRmJH5 DoDUD& RGDUH6 GQD	
DLQ[ ] DP $		XEXU3 R15 QDXGDW(DWHURQ)	0$ XEXU3 R15 , 7	
GQRGDUH& QDQDWQD3		HGQDU* DW0 DGQDQRLFD1 DWHURQ)	iLR* RmWH6 HGQDU* HVDQHYD& GQDDIKD% * VRJQP R' Rm6	
LWQDQW& GQVHUR) VRP D& VRQLQX6		QH0 RGDKQ,DGQDXGDW(HXTUD3	53 QH0 RGDKQ,	
GQRGDUH& QDQDWQD3		DGDUXR' DUH6 DGQDXGDW(HXTUD3	2* DGDUXR' DUH6	
GQRGDUH& QDQDWQD3		DQ~DUD3 HGQDXGDW(HXTUD3	2* DGDUXR' DUH6	
GQRGDUH&		RmSDQD- RGQDXGDW(HXTUD3	WHRGX6 RGDGDSDK&	

ODQDWQLD3			RmKQUDO tXDL3 RG 2 7 VQLWQDFR7 GQD	
VHUR) FLWQDOW$/ VRP D& GQD VRQLOX6		i QDUD3 RGRFL3 ODXGDW(HXTUD3	5 3 i XJDQDUD3 DLpUX-	
VHUR) FLWQDOW$/ VRP D& GQD VRQLOX6		VR- URVVHIRU3 ODXGDW(HXTUD3]FLZ RKFD:	JDEL7 RL5 RLGp0 RWW$ 5 3 XoDXJ, RL5 RW$	
DJQLWDD&		DYR1 DUUH6 ODXGDW(HXTUD3	JQLWDD& DGOX6 HWP L/ * 0	
DLQ[ ] DP $		DP ~DP X6 ODXGDW(HXTUD3	DUHXTVHP HJUD0 $ 3 $ 0 $ RUJH1 RL5 RG	
VHUR) FLWQDOW$/ VRP D& GQD VRQLOX6		DUXFV(DWD0 DGDFLJ y ORL%DYUHVH5	* 0 DUDQHP O$	
DLQ[ ] DP $		HYi WQHWX6 RWQHP LYORYQHVH' HGDYUHVH5 P LEXIX&	2 5 P LEXIX&	
VHUR) FLWQDOW$/ VRP D& GQD VRQLOX6		HYi WQHWX6 RWQHP LYORYQHVH' HGDYUHVH5 RmUDEX7 RGDWQR3 ODXGDW(	L5 RGHWUR1 ODURW/ 1 5 HWUR1 RGHGQDU'	HHUFHGR1 DUDHQLUDP
DLQ[ ] DP $		HYi WQHWX6 RWQHP LYORYQHVH' HGDYUHVH5 VXUX3 ~FDJDL3	0 $ VH} P LOR6 R[LD%	
GQRGDUUH& ODQDWQLD3		HYi WQHWX6 RWQHP LYORYQHVH' HGDYUHVH5 LUDF$ RL5 RGVDGHUH9	R6 RW$ RGDLFD% * 0 RFVLFQDU)	
DLQ[ ] DP $		DQX[LS, i XWD& DWLYLWDUW(DYUHVH5	0 $ LUDR&	
DJQLWDD&		LUUD& RGDWQHLEP $ RmoHVRU3 HGDHUÈ	%3 RQDELDUD3 LUUD&	
GQODWDR& HQR= HQLUD0		HDJQLWH5 DGODQRLFD1 DWHURQ) ROHGHED&	WXTR5 Rm6 HGRED& VVRGR7 HGDLKD% %3 VRWQD6	
DLQ[ ] DP $		i GQXFD- HGODQRLFD1 DWHURQ)	2 5 i GQXFD-	
WHUR) FLWQDOW$/ VRP D& VLOX6 GQODWDR& HQR= HQLUD0		pSDUDFD- RGODXGDW(HXTUD3	RDW5 DWQD6 HGDWD0 DQHF/ HGDWQR3 r SD6 %3 HGQR& RD	
VHUR) FLWQDOW$/ VRP D& GQD VRQLOX6		tDWDW,VRGDUUH6 DGODQRLFD1 HXTUD3	& 6 DEXWDUDX* mXSDW,V	
LQ[ ] DP $ GQODWDR& HQR= HQLUD0		XSXUXUX& HGDWLYLWDUW(DYUHVH5	VLFQk UWQHH5 VDG$ 3 $ D$ VHVQHKQDUD0 VDG[LD% VHVQHKUD0 VLFQk UWQHHH5 GQVHVQHKQDUD0 $ 0 VHVQHDUD3	
DLQ[ ] DP $		mQSD& RGRJD/ RGDWLYLWDUW(DYUHVH5 HGQDU'	7 HmQDSD& RJD/ , 7 0 $ DEP DUL$	
DLQ[ ] DP $		RLVfUQ$ RGRKQ]RL5 DWLYLWDUW(DYUHVH5	LU, RL5 LWRQJDUNQH0 , 7 $ 3	
DLQ[ ] DP $		HUSP H6 DUD3 HGUH9 DWLYLWDUW(DYUHVH5	$ 3 VDQR] DP $ R[LD%	

DLQ[]DP$		DODWQHLEP$ RmoHWRU3 HGDHUÈ DKQLGQH]D)	DKQLGQH]D) %5	
VHUR) FLWQDOW$Y VRPD& GQD VRQLOX6		QLFLUH* HGODWQHLEP$ RmoHWRU3 HGDHUÈ DKQDGQH0	mJÜ VRGDUUH6 DLDFR%DGDUUH6 -XoDXJ,DYR1	
DLQ[]DP$		VyN0SD7 RGODWQHLEP$ RmoHWRU3 HGDHUÈ	VyN0SD7	
DLQ[]DP$		R6 pSDUDJ,ODWQHLEP$ RmoHWRU3 HGDHUÈ RFVLFQDU)	DPLWQ$ RFQDU%R15 & RFQDU%R15	
DLQ[]DP$		iXDQ$ HGODQRLFD1 DWHUR)	DRUW$Y LUP LD: ,7 L5 R[LD%GQDRLGp0 LGRSyQLDUR5 RFQDU% 5	
DLQ[]DP$		LUDIX7 DWDXOD%HGODQRLFD1 DWHUR)	LQ[GQR5 KWLZ UHGUR% UX3 R[LD%DPX- ,7 WLDPX+ HGRSPD& $ DPDWXQD&	
DJQLWDD&		VHUDPOD3 HGODQRLFD1 DWHUR)	RPD& HGR[HGSPR& ,VRW$ URLD0	
VHUR) FLWQDOW$Y VRPD& GQD VRQLOX6		DUXE,RGODQRLFD1 DWHUR)	GQDQDLDEDWVHGDUUH6 DFQDU%DLHU$ HGVDWD0	
GQRGDUUH& ODQDWQD3		ODUED& RGDUUH6 DGODXGDW(HXTUD3	*0 ODUED& RGDUUH6	
DLQ[]DP$		DELUDX* RGODXGDW(HXTUD3	7DUHGD0 RLGp0 RDUHFHED& DEXWDQL3 L6 ,7 DQX/ R15 UD- RJD/ ,7 D]QL& GQDQDSD& RJD/ ,7 URFLQD0 DEPDUL$	
GQRGDUUH& ODQDWQD3		VDVH0 VD' DGDSDK& DGODQRLFD1 HXTUD3	JÈ VDGRQRJtOR3 RmKQUD0 RGHWVHRGX6 0 DQLRUD&	
VHUR) FLWQDOW$Y VRPD& GQD VRQLOX6		DQDLDEDWVHGDUUH6 DGODQRLFD1 HXTUD3	GQDQDLDEDWVHGDUUH6 DFQDU%DLHU$ HGVDWD0	
GQRGDUUH& ODQDWQD3		UUH6 DGVHWQHFVD1 DFLJyORL%DYUHVH5 REPLKFD& RG	REPLKFD& RGDUUH6	
DLQ[]DP$		HYiWQHWVX6 RWQHPLYORYQHVH' HGDYUHVH5 mQDXSLL$	mQDXSLL$ RL5	
DLQ[]DP$		mQDXU3 DFyLL$ DWLYLWDUW[(DYUHVH5	lOR* HQR= ODWVDR& [LD%DUDRN0DUD0 RG LUD& VQLWQDFR7 HXtX%RQDELUD3 DWRS,RGHOD9 $iUD3 RGVDUH2	
DLQ[]DP$		DELUDX* RGDWLYLWDUW[(DYUHVH5	5 VWOYHVRR5 DELUDX*	
DLQ[]DP$		RKQL]OQ$ ~DS,DWLYLWDUW[(DYUHVH5	RmLDVQLWQDFR7 R[LD% $	
LQ[DP$ GQODWDR&		iXSD0 DWLYLWDUW[(DYUHVH5	lOR* HQR= ODWVDR& D$ DUDRN0DUD0 RG	

HQR= HQLUD0			NDUD0 RGRJDQHSLXTUD UDRNDUD0 Rm1QR* $ VHYHU%	
LQ[]DP $ GQDWDR& HQR= HQLUD0		DKLUD0 DWLYLWDUW[V(DYUHM=5 DERUH3 LDU$	VLFQkUWQH=5 GQVHVQHKQDUD0 WWXJX$ VHVQHDUD3 $ Dr UUR&	
LQ[]DP $ GQDWDR& HQR= HQLUD0		DKLUD0 DWLYLWDUW[V(DYUHM=5 XoDUHSDWWWD&	VLFQkUWQH=5 GQVHVQHKQDUD0 WWXJX$ VHVQHDUD3 $ Dr UUR&	
LQ[]DP $ GQDWDR& HQR= HQLUD0		HDKQLUD0 DWLYLWDUW[V(DYUHM=5 i LU3 LSXUX*	VLFQkUWQH=5 GQVHVQHKQDUD0 L5 RW3 VHVQHDUD3 W3 , 7 iP DX* $ XHM9 XoDLUX7	
LQ[]DP $ GQDWDR& HQR= HQLUD0		DXHMDXFDU7 DKQLUD0 DWLYLWDUW[V(DYUHM=5	VLFQkUWQH=5 GQVHVQHKQDUD0 VHVQHDUD3	
DLQ[]DP $		DRKQL]R5 DWLYLWDUW[V(DYUHM=5 HGDGUHEL/	HGDGUHEL/ DGRKQL]R5	
DLQ[]DP $		mQDP $ RGDQRLFD1 DWHURQ)	70 VHU3 VHQH7 R5	
GQRGDUUH& QDQDWQD3		LURSHU& RGDQRLFD1 DWHURQ)	PLKFD& RGDUUH6 VU3 VHQH7 R5 GQD$3 70	
DLQ[]DP $		P L[QDP D- RGDQRLFD1 DWHURQ)	$3 DQHXUX- R5	
DLQ[]DP $		P L[QDP D- RGDQRLFD1 HXTUD3	$3 DEXWDW/	
DLQ[]DP $		RYR1 R5 RGDQRLFD1 HXTUD3	$3 DEXWDW/	
VHUR) FLWQDQW6/ VRP D& GQD VRQLQX6		VLDU+* VRSP D& VRGDQRLFD1 HXTUD3	JDEL7 R5 RLGp0 RW3 53 XoDXJ, R5 RW3	
VHUR) FLWQDQW6/ VRP D& GQD VRQLQX6		VDLUJFXDU$ VDGDFLJy@RL%DYUHM=5	JDEL7 R5 RLGp0 RW3 53 XoDXJ, R5 RW3	
DLQ[]DP $		VyNDSD7 RGDWQHLEP $ RmoHWRU3 HGDHUÈ	70 VHU3 VHQH7 R5	
			TOTAL	**28,825,936**