

**BANK MANAGEMENT RESPONSE TO
REQUEST FOR INSPECTION PANEL REVIEW OF THE
BRAZIL: PARANÁ BIODIVERSITY PROJECT (GEF TF 051007)**

Management has reviewed the Request for Inspection of the Brazil: Paraná Biodiversity Project (GEF TF 051007), received by the Inspection Panel on July 10, 2006 and registered on July 11, 2006 (RQ06/04). Management wishes to bring to the Panel's attention information on recent developments stemming from the ongoing dialogue that includes the State of Paraná and the Bank.

This process of dialogue, which was initiated prior to the submission of the Request, has resulted in the issuance of a joint Supervision Mission Aide Memoire of July 27 to August 1, 2006, reflecting recent understandings between the State of Paraná and the Bank, including an ongoing Technical Audit which will evaluate the institutional arrangements and management of the project and the impact of the project on the conservation of forest remnants.

In this manner, opportunities have been created for discussion between the State of Paraná, the Bank and the Requesters regarding the identification of instruments that could ensure the effectiveness of the project in conserving Araucária forest remnants. The adoption of such mechanisms should have immediate positive impacts on the project's aims in the Araucária corridor.

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(translation and original)

ABBREVIATIONS AND ACRONYMS

APP	Area de Preservação Permanente Permanent Preservation Area
BP	Bank Procedures
CCPG	Centro de Coordenação de Programas do Governo Center for Coordination of Government Programs (project coordinating unit)
CEPF	Critical Ecosystem Partnership Fund
Codapar	Compania de Desenvolvimento Agropecuario do Estado de Paraná Agricultural Development Corporation
CONAMA	National Environmental Council
EMATER	Empresa Paranaense de Assistência Técnica e Extensão Rural Technical Assistance and Rural Extension Company of Paraná
GEF	Global Environment Facility
GIS	Geographic Information Systems
GPS	Global Positioning System
IAP	Instituto Ambiental do Paraná Environmental Institute of Paraná
ICMS	Imposto sobre Circulação de Mercadorias e Serviços Tax on the Circulation of Merchandise and Services (VAT)
IPN	Inspection Panel
ISR	Implementation Status and Results
NRM	Natural Resources Management
OP	Operational Policy
PAD	Project Appraisal Document
PBP	Paraná Biodiversity Project
PPG-7	Pilot Program to Conserve the Brazilian Rain Forest
PROBIO	National Biodiversity Program
RMA	Rede Mata Atlântica Atlantic Forest Network
RPPN	Reserva Particular do Patrimonio Natural Privately owned protected area (recognized by the government)
SEAB	Secretaria de Estado da Agricultura e do Abastecimento State Secretariat of Agriculture and Supply
SEMA	Secretaria de Estado do Meio Ambiente e Recursos Hídricos State Secretariat of the Environment and Water Resources
SEPL	Secretaria de Estado do Planejamento e Cordenacao Geral State Secretariat of Planning and Coordination
SISLEG	Sistema Estadual de Conservação e Recuperação de Reserva Legal e Área de Preservação Permanente State System for Conservation and Recuperation of Legal Reserves and Permanent Preservation Areas
UC	Unidade de Conservação Conservation Unit (Brazilian terminology for Protected Areas)
UFP	Universidade Federal de Paraná Federal University of Paraná
UGP	Unidade de Gerenciamento do Projeto Project Implementation Unit

I. INTRODUCTION

1. On July 11, 2006, the Inspection Panel registered a Request for Inspection, IPN Request RQ06/04 (hereafter referred to as “the Request”), concerning the Brazil: Paraná Biodiversity Project (PBP) financed under the Global Environment Facility (GEF Trust Fund 051007).

2. *Structure of the Text.* Section II of this document outlines the Request. Section III provides project background. Section IV discusses issues raised by the Request. Section V presents Management’s response. Annex 1 presents the Requesters’ claims, together with Management’s detailed responses, in table format. Additional annexes include information on project expenditures (Annex 2) and project indicators (Annexes 3 and 4), a discussion of biodiversity conservation theory focused on the concept of ecological corridors (Annex 5), the terms of reference for a Technical Audit of the project (Annex 6), and the Supervision Mission Aide Memoire of July 27 to August 1, 2006 (translation and original, Annex 7).

II. THE REQUEST

3. The Request for Inspection was submitted by a non-governmental organization (NGO) based in the State of Paraná, Brazil. The Requesters have asked the Panel that their names and their organization’s name be kept confidential. The Request for Inspection is composed of a formal letter to the Panel, dated June 23, 2006, and a letter with annexes, dated March 21, 2006, sent to the Inspection Panel and the World Bank by an umbrella NGO, the Atlantic Forest Network (RMA). The Requesters asked that the March 21, 2006 letter with annexes be considered an integral part of the Request.

4. The Request contains claims that the Panel has indicated should be evaluated to determine compliance by the Bank with provisions under the following policies and procedures:

- OP/BP 4.01 Environmental Assessment, January 1999;
- OP/BP 4.04 Natural Habitats, June 2001;
- OP/BP 4.36 Forestry, September 1993; and,
- OP/BP 13.05 Project Supervision, July 2001.

III. THE PARANÁ BIODIVERSITY PROJECT (PBP)

5. **Project Objectives.** The primary development objectives of the PBP, as stated in the Project Appraisal Document of April 25, 2002 (PAD, page 2), are to: support biodiversity conservation and sustainable natural resources management (NRM) in two highly threatened eco-regions in the State of Paraná, the Brazilian Inland Atlantic Rainforest and the Araucária Forest;¹ and, design and implement a model for improving biodiversity conservation in Paraná.

6. The project is achieving these objectives in three project corridors through: (a) mainstreaming biodiversity conservation among targeted Government agencies, rural communities and civil society organizations; (b) mitigating threats to biodiversity through establishment of three ecological corridors² and consolidation of sustainable practices in target areas; (c) strengthening monitoring and enforcement functions; and (d) reviewing and developing relevant norms, legislation, regulation, enforcement and incentive systems.

7. **Three Ecological Corridors in Two Eco-regions.** The PBP has supported the creation of two ecological corridors in the Inland Atlantic Rainforest eco-region and a third in the Araucária eco-region:

- *Corridor Caiuá Ilha Grande.* Located on the northwestern border of Paraná, the corridor generally follows the Rio Paraná and has its extremities in the Caiuá State Ecological Station and the National Park of Ilha Grande. The Rio Paraná contributes to making this one of the eco-region's richest repositories of biodiversity. It includes an archipelago of more than 300 islands, varzeas (periodically flooded areas), alluvial forests and transitional areas between forest and savanna. The main State Parks targeted by PBP for Management Plans and modernization are the Caiuá Ecological Station and the São Camilo State Biological Reserve. To consolidate the corridor, connectivity is forged with six additional protected areas.
- *Corridor Iguaçu-Paraná.* Located in the southeastern corner of the State, this corridor is under pressure from the agricultural frontier owing to the richness of its soils. It is important also because it links the Iguaçu National Park, the largest continuous area of inland Atlantic forest, with a major initiative to recuperate areas (the "Poligonal Envolvente") in and around the lake formed by the Itaipu hydroelectric dam. Two protected areas, the State Park of Rio Guarani and the Area de Relevante Interesse Ecológico (Area of Relevant Ecological Interest) da Cabeça do Cachorro are targeted by the

¹ The areas are among the 25 global "hotspots"—highly threatened regions with exceptional biodiversity and endemism as defined by the Center for Applied Biodiversity Science of Conservation International.

² These corridors are based on micro-catchments previously identified and delineated by the State of Paraná.

PBP for management plans; upgrade and connectivity will be forged with three other protected areas to consolidate the Corridor.

- The third *Araucária Corridor* has been established in the Araucária eco-region in the center-south of the State. It includes three PBP targeted conservation units (Unidade de Conservação, or UC). Paraná has the largest Araucária (*Araucária angustifolia*) forests in Brazil, which at one time covered roughly 40 percent of the State's area. Less than 1 percent of the original forest survives, in an extremely fragmented manner, exacerbating its fragility. The area chosen for the corridor represents among the most important surviving forests and those with the best chance of achieving sustainability through increased connectivity and corridor consolidation.

8. The three Corridors taken together cover an area of about two million hectares; involve seven state protected areas, 280 micro-catchments and 63 municipalities. The corridors comprise over 40 percent of the municipal land mass in their relevant eco-regions. The rural population is estimated at about 300,000, and a projected 20,000 farmers are targeted for participation in project investment activities. A review of the Request for Inspection indicates that the Requesters' concerns focus on the Araucária Corridor.

9. ***Project Components.***

- *Component I: Education and Capacity Building (US\$1.58 million: GEF US\$1.21 million + State US\$0.37 million).* The objective of this component is to: (i) sensitize the population of the State of Paraná to the importance of biodiversity conservation, mobilizing it to support the process of recuperating and maintaining the quality of the State's main ecosystems; and (ii) prepare project implementing agencies, beneficiaries and stakeholders to take part in the Project.
- *Component II: Biodiversity Management (US\$26.74 million: GEF US\$4.93 million + State US\$21.81 million).* The objective of this, the largest of the components, is to work with targeted rural producers in interstitial areas and UC officials to assure that the production and conservation activities they undertake will improve the environmental integrity of the three corridors and thereby safeguard biodiversity.
- *Component III: Control and Protection (US\$2.49 million: GEF US\$1.16 million + State US\$1.33 million).* This component addresses reform of the state environmental monitoring and evaluation, licensing and enforcement functions, and the protection of threatened species.
- *Component IV: Project Administration (US\$2.05 million: GEF US\$0.71 million + State US\$1.34 million).* Component IV comprises two sub-components, Project Administration (US\$1.67 million) and Strategic Studies (US\$0.38 million).

10. The PBP was approved by the Board on May 21, 2002 and became effective on August 27, 2002.

IV. ISSUES

Project Context and Design

11. Paraná is a large state with high biodiversity. Degradation of biodiversity is a long-standing issue, with very strong forces and interests driving this process. The State of Paraná has a number of instruments and approaches for managing the variety of environmental challenges it faces. Among them, the PBP accounts for roughly 10 percent of the State's annual environment budget. As is befitting a project of this size, its scope and objectives are modest, namely to help demonstrate that biodiversity corridors are a useful tool in enhancing biodiversity conservation in productive landscapes. This demonstrative effect is expected to make a contribution to establishing one of the many mechanisms necessary for maintenance of selected Atlantic Forest ecosystems. While the PBP contributes to building the necessary tools to address the long-standing challenge of biodiversity conservation in the state, its implementation by the State of Paraná is one among many government activities concerned with biodiversity.

12. The State of Paraná is responsible for the implementation of this GEF project, and the role of the World Bank is to ensure, on behalf of the GEF, that the project is being executed in accordance with the terms of the Grant Agreement and in compliance with GEF and World Bank policies. In preparing this response, Management has considered both: (a) the modest size, scope, and objectives of this GEF demonstration project relative to the overall goal of biodiversity conservation in the State of Paraná; and (b) the respective roles of the State of Paraná and the World Bank.

13. The State of Paraná designed the PBP as an effective and efficient method of achieving the objectives of supporting "biodiversity conservation and sustainable natural resources management in two highly threatened eco-regions in the State of Paraná: the Brazilian Inland Atlantic Rainforest and the Araucária Forest." As such, it aims at identifying sustainable mechanisms to mainstream biodiversity conservation in productive landscapes. In this way, the PBP is conceived to be a demonstration project with a highly focused geographic scope (see Map 1). In both eco-regions, the State of Paraná found consolidating and ensuring ongoing protection for three extensive biodiversity corridors to be the most efficient and effective method of conserving biodiversity.

14. The PBP received financial resources from a GEF grant (US\$8 million). Most program costs were covered by an existing government project aimed at improving the overall NRM in micro-catchments throughout the State of Paraná. These NRM activities implemented by the Secretariat of Agriculture (SEAB) and partly financed by the Bank under the Paraná Rural Poverty Alleviation and Natural

Resources Management Project, Loan 4060-BR, provided the “baseline” elements for those micro-catchments included within the biodiversity corridors.

15. **Design.** The PAD notes that there are different approaches to ensuring conservation of biodiversity. In brief, the two main approaches are: (a) an isolated protected areas approach which concentrates on conserving biodiversity in existing isolated patches; and (b) a corridors³ approach which builds up interconnectivity between specific areas with existing biodiversity. Both of these were considered during preparation, and the second option was selected. (This is discussed in the PAD under the heading Project Alternatives Considered and Reasons for Rejection, and the corridors approach is covered in greater detail in the “Strategic Approach” section of Annex 2 of the PAD. See also Annex 6 of this Response.)

16. Regarding project activities in degraded areas, the Requesters state (Annex 1, Item 2) that “*if the restoration work that has begun is maintained, those areas may become native areas, but without any guarantee that they will have a truly significant biodiversity.*” Under the corridors approach, reforested areas themselves are not expected to contain significant biodiversity. Rather, the objective of a biodiversity corridor is to facilitate the gene flow between populations in the existing biodiversity-rich areas, enhancing the long-term survival probability of biological communities and their component species. (Mosaics of multiple land uses in a managed landscape can allow populations to move among proximate forest “stepping stones.”)

17. Regarding the balance between conservation and restoration activities, the Requesters also state that “*energy was spent in planting millions of seedlings in the hopes of reconstituting the original landscape of areas that had been completely degraded and that exhibited extremely low biodiversity while, at the same time, in those same regions, the last areas that were still well preserved and rich in biodiversity are being systematically destroyed.* The PBP allocates 3 percent of the GEF resources to restoration of degraded areas, while 59 percent is focused on conservation activities.⁴ The State of Paraná determined these allocations to be the most effective in balancing preservation of existing forests and restoration of degraded areas where this is necessary to create connectivity.

18. In designing the PBP, the establishment of three such corridors was targeted, with additional support to ensure their proper maintenance and protection so that they continue to exist following project closure. In the Inland Atlantic Forest eco-region, two corridors have been developed (one with a total area of 987,000 hectares and one with a total area of 575,000 hectares) containing a total of five UCs. In the Araucária eco-region the project is developing one corridor (with a total

³ A biodiversity “*corridor*” is defined as a mosaic of land uses connecting fragments of natural forest across a landscape.

⁴ The remaining 38 percent is allocated to education and capacity building, control and protection, and project administration.

area of 589,000 hectares) containing four UCs. All of the corridors are precisely defined in maps (see Map 1.)

19. Annex 2 of the PAD lays out the scope of project components in detail. Component I targets the raising of awareness of biodiversity conservation with state government, rural communities and civil society organizations. Component II is limited to acting on certain chosen sites within the corridors. (In the case of the Araucária corridor, these sites fall within an area covering 47 percent of the total area of 11 selected municipalities – PAD, pp. 46-47). Component III has been developed for the UCs within each corridor to ensure monitoring and enforcement of legislation, and Component IV funds five strategic studies, two of which are of relevance to conservation of Araucária forests.

20. For the State of Paraná, the PBP makes the difference in strengthening the UCs. Without the PBP, the UCs would be isolated, containing small isolated populations of species susceptible to the inbreeding that can lead to loss of genetic diversity and ultimately local extinction of species. Connecting such areas, as envisaged under the PBP, provides them with the critical ability to sustain greater biological diversity. (See Annex 5 for a detailed discussion of this issue.)

Project Implementation and Status

21. The Requesters state (Matrix 2, Item 1) that “*Methodological changes were made soon after Project approval (Paragraph 4 of letter attached to the Request) that caused a redirectioning of activities, thus not allowing the achievement of originally expressed goals.*” Management reviewed the implementation of the PBP and project indicators presented in Annexes 4 and 5 and considers that resources have been directed to activities consistent with the project design financing plan. The PBP is following the original PAD endorsed by the World Bank and the GEF. In particular, project objectives continue to be those stated in the PAD, the working areas remain the same, the components are those stated in the PAD and the same indicators are being used to monitor progress. This progress has been monitored in every supervision mission (9 separate missions between September 2002 and July 2006) and the indicators together with key information on implementing institutions, units of measurements and goals were duly followed and formally documented in all relevant supervision documentation.

22. The Requester also states (Annex 1, Item 5) that, “*After four years of execution (the project was begun in 2002), there is an obvious lack of synchronization between what was originally proposed and the orientation given to the Project*”. It is true that during the first half of the project implementation period (September 2002-early 2005), the State of Paraná implemented the GEF-financed biodiversity conservation activities of the project more slowly than the NRM activities. The relatively slower implementation of the biodiversity conservation element was caused by a delay in agreement over procurement procedures between the new state administration in Paraná (which took office in January 2003) and the Bank. The delay did not affect the NRM activities of the project, since it was

designed to use community participation methods on which the Bank and the state administration had agreed. Agreement on procurement procedures for the GEF financed activities was reached in late 2004 when the Bank began accepting electronic bid submissions, making the Bank and the administration approaches consistent, and ensuring compliance with Bank procurement policies for fiduciary and risk management. The result was an 18 month delay in the GEF-financed activities, and different rates of progress under the two parts of the project.

23. The impact of slower than anticipated implementation of the GEF-financed activities of the project on beneficiaries' satisfaction with the timing of technical and financial support for conservation sub-projects was noticeable. The Bank missions noted beneficiaries' concerns in the field during supervision missions and these were broadly discussed with the PIU and relevant state agencies. Recommendations were formulated in supervision mission aide memoires and agreed both with the PIU and the government. (Aide Memoires dated November 22-28, 2003, October 4-6, 2004, April 4-7, 2005 and September 12-15, 2005). Due to the slow implementation of the GEF-financed activities of the project, the task team downgraded the Development Objective and Implementation Progress ratings of the project in June 2005.⁵ Following the resolution of the procurement issue, execution of the GEF-financed activities of the project accelerated gradually, balancing overall implementation. Most performance indicators reached their target levels by December 2005. Annex 3 also shows all the original Input, Output and Outcome Indicators for the PBP, their final target values, intermediate target values – where defined – and their current values as of March 2006. Taking into account the delay noted above, these indicators demonstrate that the achievement of project outputs is currently on track.

24. As of July 12, 2006, the PBP had disbursed US\$3.95 million – just under half the total amount of the GEF grant of US\$8.0 million. This is less than the originally envisaged target of US\$7.5 million due to the delay in agreement over procurement procedures noted above. Following resolution of this procurement issue a four-month action plan was finalized in September 2005 with specific short-term goals for certain output indicators. (See Implementation Status and Results – ISR 9.) After the indicators showed over 90 percent achievement of these short-term goals over the period from September 2005 to March 2006, the PBP was upgraded in June 2006 and is currently rated satisfactory, consistent with Bank-wide good practice in supervision. The implementing agencies are in the process of initiating the Mid-Term Review, which is expected to provide the stocktaking of implementation to date, and to identify lessons learned and mechanisms to advance the contribution of project activities to achieving project development objectives.

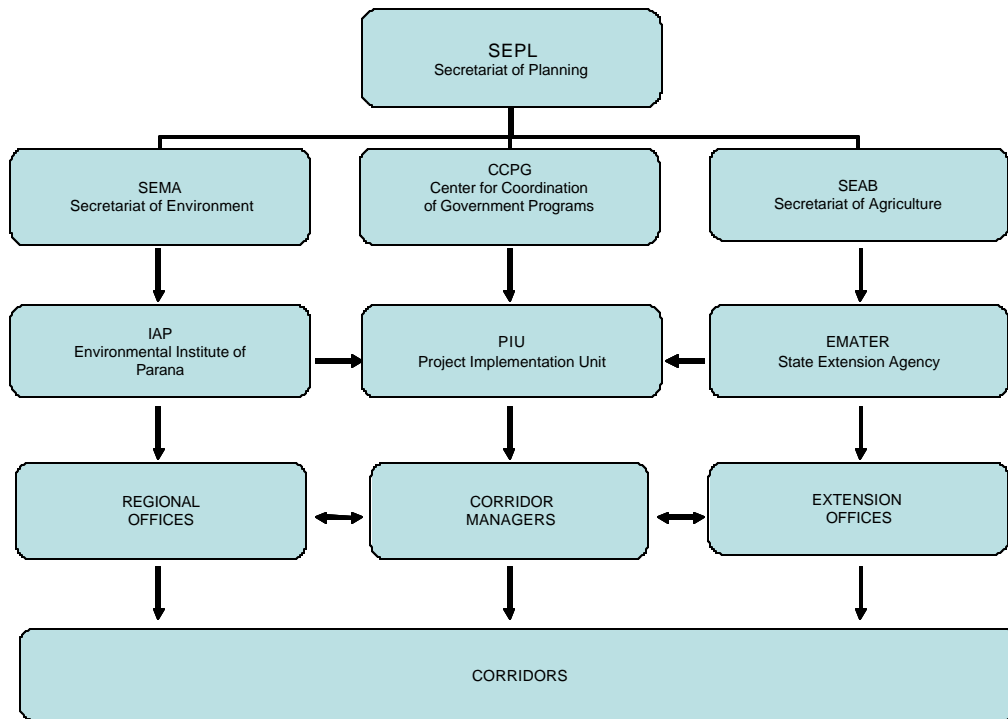
⁵ From late 2004 through early 2005, the PIU's progress on increasing the pace of implementation of procurement per the agreements of late 2004 was insufficient. The Mid-Term Review was postponed due to these implementation delays as well.

As an input to the Mid-Term Review, the Bank has commissioned a Technical Audit of project status (discussed below in the section on Natural Habitats).

25. **Decentralized Implementation.** The PBP is a complex project mainly due to the challenging institutional arrangements, which entail the effective coordination and communication of several State institutions, both at the central and municipal level (see Figure 1 below).

26. Decentralized monitoring has been enabled through the project’s creation of Municipal Biodiversity Chambers (*Câmaras da Biodiversidade nos Municípios*) and Regional Councils (*Conselhos Regionais*). The involvement of these chambers and councils with the PIU has reduced the difficulty of monitoring project activities in the field, especially as these extend to over 300 micro-catchments and more than 12,000 properties involved within the three project corridors. Approximately 528,000 hectares are currently monitored by these Chambers and Councils together with the active participation of field staff of Technical Assistance and Rural Extension Company of Paraná (EMATER) and the 9 regional offices of the Environmental Institute of Paraná (IAP). In the particular case of the IAP, discussions on follow-up for law enforcement and biodiversity monitoring have occurred. One example of this is the project’s support for establishment of the “Green Force (*Força Verde*).” This innovative enforcement initiative is led by the Forest Police and is being strengthened by the project.

Figure 1. Paraná Biodiversity Project Organizational Chart



27. **Corridors and Micro-Catchments.** Implementation of key project actions requires direct involvement of farmers, either individually or organized along

micro-catchments. The Requesters state (Annex 1, Item 8) that “*The absence of tools that would permit working directly with the owners of those lands of crucial importance to the conservation of biodiversity leads those owners to seek alternative uses for their properties in what is recognized as a more standard practice, thus resulting in their destruction*”. Through a highly participatory process, involving producers, State and municipal representatives and civil society at the local level, the PBP has actively engaged to date a total of 12,350 farmers in biodiversity conservation activities within micro-catchments, and about 38,000 farmers have received training related to biodiversity issues. In this way, the PBP provides a significant counterweight to the prevalent market pressures for adoption of conventional cultivation practices (e.g., monoculture).

28. Between February 2003 and March 2006, the project promoted over 900 meetings with local producers to begin working in land conservation and planning within the micro-catchment vision. Results include 3,000 hectares of Permanent Protection Areas (APPs⁶) recovered, 1,600 km of river banks (gallery forests) protected and 1,400 properties planned for conservation. Training is another good example of field presence of the project, with more than 100,000 people involved in training and project funded activities in 800 schools and educational centers within the corridors.

29. **Support to Protected Areas (UCs).** The PBP also supports existing protected areas within the three project corridors. There are 10 core conservation areas within the corridors targeted by the project:

- *Caiuá–Ilha Grande Corridor*, 3 areas (Area de Protecao Ambiental das Ilhas e Várzeas do Rio Paraná and Parque Nacional Ilha Grande, Reserva Biologica de São Camilo, Estacao Biologica do Caiúa) totalling 276,000 hectares;
- *Iguaçu–Paraná Corridor*, 4 main areas (Parque Nacional do Iguazu, Parque Estadual Rio Guarani, Área de Interesse Ecológico da Cabeça do Cachorro, and Fazenda do Iguaçu) totalling 187,500 hectares. This corridor also holds important conservation sites under private ownership as private reserves (RPPN under Brazilian legislation) – Rubens Piovezan, Naude Prates, Almiro Liberali, Estancia Serra Morena; and
- *Araucária Corridor*, 3 areas (Estação Ecológica do Rio dos Touros, Parque Estadual de Araucária, and Reserva Forestal de Pinhão) totalling 2,256 hectares.

30. Given the importance of these protected areas for the maintenance of genetic diversity, the PBP has contributed to the funding of infrastructure for ensuring

⁶ See APP definition in footnote 14.

conservation management in all of these areas (e.g., visitors' centers, scientist residences), and covered management expenditures for the protected areas in some. In the protected areas' buffer zones, the project is providing biodiversity friendly extension, training and dissemination work. The project has so far provided technical services for the elaboration of management plans for Rio dos Touros, São Camilo, Pinhão and Cabeça do Cachorro. Additional actions for supporting the conservation of these sites are underway for Rio Guarani and for acquisition of demarcation and fencing materials in Rio Guarani and São Camilo.

31. **Current Status.** In the case of the two corridors created in the Inland Atlantic Forest, (Caiuá–Ilha Grande and Iguaçu–Paraná) implementation has progressed according to plan thanks to balanced implementation of all project components and activities. There have been no complaints registered regarding project implementation, and stakeholder feedback indicates satisfaction with progress toward project objectives (as recorded during visits to the Municipal biodiversity chambers and project beneficiaries during supervision missions).

32. In the case of the Araucária corridor, due to the very small coverage by protected areas, and the high level of fragmentation of forest remnants, an effective construction of the corridor involves a complex participatory planning process with many landowners in their micro-catchments. Nonetheless, project implementation is progressing well, following the arrangements set out in the PAD and the Project Manual. Intermediate indicators show that the originally planned prioritization of key areas for biodiversity conservation in the many micro-catchments has been concluded. Currently, the State of Paraná is identifying a series of small- and medium-sized properties that could greatly contribute to the stepping stone approach within the corridors (see Annex 5). Through the Mid-Term Review, the Bank and the State expect to define mechanisms through which the project could assist the State decision to support these landowners to create privately owned protected areas (RPPNs) within the federal private land protection legal framework. Also the strengthening of partnerships with RPPNs, with consortiums of producers, and with conservation organizations working in the corridor has been included in the 2006 Implementation Plan.

33. In addition, the project is evaluating the potential use of innovative instruments, such as awards for sustainable conservation experiences and practices and funding for the preservation of remnant tracts in good conservational status. These include: tax exemptions to those who maintain forest to partially offset the opportunity cost of not converting to crop production; the channeling of the “ICMS Ecológico” (Green Value Added Tax) to farmers through environmental service payments; financing the up-front costs of establishing RPPNs (i.e., for inventory and administrative costs); and direct investment grant support for ancillary use of forest assets (e.g., eco-tourism). These additional instruments could be considered for deployment if found to be useful by the Technical Audit.

34. **Summary.** The Requesters state (Annex 1, Item 9) that “*it could be easily concluded that activities aimed at effectively detaining the destruction process of*

the last existing preserved natural areas are not being implemented. Hence, the project objectives are far from being achieved". As noted above, implementation of the PBP by the State of Paraná is following its original design, as set out in the PAD. This design balanced the allocation of activities between areas still well preserved with recovery of degraded areas (either through the promotion of connectivity or improvement of gallery forest along river banks). The set of these activities targeted and executed does not deviate from those envisioned under the PBP's original design, and these activities can achieve the PBP's development objectives.

35. As the PBP looks to the future, the PIU and its associated institutions have been discussing various mechanisms to improve private conservation methodologies and further the innovative and demonstration nature of this project. Although involving landowners and the wider rural population in the conservation of biodiversity is complex, the PBP has implemented a full program of training aimed at stakeholder participation in the conservation of biodiversity and natural resources and thereby has helped increase the awareness of people living in key biodiversity areas regarding the benefits of conservation.

Environmental Assessment, OP/BP 4.01

36. Following the requirements of OP 4.01, the project was classified as Category "B". An Environmental Assessment (EA) summarizing the procedures for subproject eligibility and screening was prepared and submitted to the Bank prior to appraisal. (These eligibility and screening procedures have been systematically applied by the PIU to all subproject applications, with post-review of this system made periodically during Bank supervision missions.) The EA found positive effects of the proposed PBP on the environment, noting in particular the following institutional factors that allow for efficient application of enforcement through various incentive schemes:

- The existing legal framework allows for Legal Reserve⁷ and micro-catchment preservation requirements to be adequately enforced.
- The operationalization of the Legal Reserve Compensation Mechanism (SISLEG)⁸ mitigates the negative command and control aspects⁹ of enforcement, permitting a negotiation process that optimizes the legal enforcement.

⁷ See Legal Reserve definition in footnote 14.

⁸ SISLEG is a program which allows private landholders who have reduced their forest cover below the required 20 percent to compensate by purchasing and putting into protected status forested areas, important micro-catchment and other areas in the same biome.

⁹ This refers to the inefficiency and high cost often associated with traditional enforcement methods.

- Targeting of the “ICMS Ecológico” (Green Value Added Tax distributed to municipalities on the basis of good environmental practices executed) provides municipalities with greater incentives to help consolidate corridors.

37. The EA noted that regulation of cutting of threatened Araucária was a very positive step, albeit one that is still contentious owing to vested lumber interests. The Government took this step in light of the devastation experienced in the few remaining forested areas and negotiations are proceeding regarding the opening of other areas to compensate lumber interests for losses suffered. The EA also concluded that decentralization of the inspection function should be done only at the request of municipalities.

38. The final draft of the EA was received by the Bank and disclosed in the Infoshop on April 8, 2002. This EA is part of the Project Manual dated July 2002. The project’s EA was widely disseminated among stakeholders and project beneficiaries in local language via the project website and four meetings in the project corridors (April-June, 2002).

39. The PIU maintained close contact during project preparation with all of the main participating government agencies. IAP and SEAB, through EMATER, were especially involved in designing the project and the state government’s training unit was responsible for the design of the Education Component (Component I).

40. An in-depth consultation on project objectives and components was held with the State of Paraná Association of Environmental NGOs (UNIAP) and four additional NGOs¹⁰ on August 24, 2000 and included ten representatives from eight different governmental institutions involved in biodiversity conservation issues. All recommendations of the meeting were incorporated into the project design and included: effective participation of civil society in councils and fora, being sure to pay attention to existing centers of protection of fauna and not just the new center supported by the project; and using a holistic project focus and approach in the region that is multidisciplinary in character, which ensures civil society participation. Also discussed were issues of environmental benefits, including quality of life, health, and access to use of natural resources. In addition, in early to mid 2001, meetings of NGOs and potential beneficiaries were convened at the regional and local level, in the target eco-regions, to ascertain views on project design, especially as it pertained to interstitial area alternative production systems.

41. NGOs have continued to be involved in the project. Component I has a budget allocation to fund NGO’s participation as trainers, especially where they have a strong local presence. The Universidade Federal de Paraná was identified in 2006 to host the Wildlife Management Center (in Component III). Local NGOs are also part of the surveillance teams in the same component; these provide regular

¹⁰ CEDEA, MEECA, XAMA, and KOALA.

targeted fauna counts as part of project monitoring and evaluation. NGOs participate in municipal and regional advisory committees and are invited to take part in local forums. The existing project structure allows those with the capacity to contribute to project implementation to be identified and involved, and NGOs and academic institutions to be involved and heard. The planned Technical Audit for the PBP will explore additional mechanisms for civil society participation.

42. In light of the information above, Management considers that the PBP has complied with all requirements under OP/BP 4.01 on Environmental Assessment, including those for the methodology and content of the EA, the EA rating and timing, and the EA consultation process.

Forestry, OP 4.36

43. Recent scientific studies have indicated that many existing Araucária forest areas are too small to maintain viable populations of Araucária and other flagship species of flora and fauna. Hence, a dominant focus on the protection of the native areas of Araucária forest, without construction of corridors, would impede attainment of the goal to prevent the loss of biodiversity associated with the Araucária forest, as the many current forest stands are not large enough to maintain viable populations of different species.

44. OP 4.36, on Forestry (March 1993, in force at the time of PBP preparation) states that Bank involvement in the forestry sector aims at reducing deforestation, enhancing the environmental contribution of forested areas, promoting afforestation, reducing poverty, and encouraging economic development. In pursuit of these objectives, the Bank has applied the following principles: (a) not financing commercial logging operations in primary tropical moist forest; (b) using a sector-wide approach to forestry and conservation work in order to address policy and institutional issues; and (c) involving the private sector and local people in forestry and conservation management. Bank policy also makes lending operations in the forestry sector conditional on government commitment to sustainable management and conservation-oriented forestry, distinguishes projects that are exclusively environmentally protective or supportive of small farmers from all other forestry operations, and finances only preservation and light non-extractive use of forest resources in forest areas of high ecological value.

45. In Management's view, OP 4.36 Forestry is not applicable to the PBP. (Management's view could be different if the new OP 4.36 had been in force at the time of PBP preparation.) The PBP does not fund any logging or deforestation activities, legal or illegal. It also does not include any provision to support tree planting for commercial use, be it a monoculture or a mixed species field. Although there are significant areas of plantation forest in the project corridors (forestry for pulp and paper) where logging is taking place, this logging is not supported by the project. The project supports the reforestation only of areas cleared before the project began. Such reforestation: (a) takes place in properties inside the corridor necessary to ensure the connectivity between natural areas; (b) uses a mix of more

than 20 local species; and (c) creates permanent forested areas, in which no harvesting is permitted.

46. The PBP supports the operation of state-managed nurseries that produce high quality seedlings of local species, including Araucária. Each farmer beneficiary of the PBP receives sets of seedlings already organized to ensure a good balance among species, including their characteristics (for example pioneer species surrounding slow-growing ones; large species planted at an appropriate distance apart). Through the PBP, the State also provides technical assistance to farmers regarding planting, spacing, and maintenance and protection of the field.

47. The Request makes specific allegations of destruction of native vegetation in the Araucária corridor. Management has been in recent contact (July 2006) with State Authorities and has been informed that there is no evidence of intensification of deforestation in the project area (Araucária Corridor). The specific incidents reported by the Requestor in their letter of March 21, 2006 are discussed in Box 2 below under the Natural Habitats section.

Natural Habitats, OP 4.04

48. The Atlantic Forest (or *Mata Atlântica*) of Brazil is one the richest ecosystems in the world. It is home to more than 20,000 species of plants, i.e., about 35 percent of plant species found in Brazil. The Forest's endemic fauna is also extremely rich. Available information indicates that there are 73 species of mammals and 160 species of birds. Among the amphibians, there are 183 recorded species, over 90 percent of which are considered endemic. Compared with the Amazon Forest, the Atlantic Forest has, proportionally, greater biological diversity. (For example, in the case of mammals, there are 215 species recorded in the Atlantic Forest versus 353 in the Amazon, although the latter is four times larger.) In addition, the majority of the Brazilian population inhabits the area of the Atlantic Forest domain, which provides water to about 120 million people.¹¹

49. The original Atlantic Forest domain comprised 1.2 million km² and remnants may still be found in 17 out of 26 Brazilian States, all in different stages of conservation. Today, an estimated 7 percent of the original areas of the Atlantic Forest remains. As a consequence, out of 202 animal species on Brazil's official threat list, 171 are from the Atlantic Forest. Agriculture and urban expansion, logging, an over-exploitation of natural resources, and air and water pollution are some of the causes for the ecosystem's environmental deterioration. Such deterioration has been ongoing for centuries,¹² but only started to receive enhanced attention from local authorities, civil society and the international community in the past 25 years.

¹¹ Source: Documents from the Ministry of Environment, Brazil.

¹² Dean, W. 1995. *With Broadax and Firebrand: The Destruction of the Brazilian Atlantic Forest*. Berkeley: University of California Press, 482 pp.

50. To address this and other environmental issues, Brazil has a vast and complex legal framework for environmental protection. Modern Brazilian environmental law can be traced to the Forest Code (Law 4.771 of 1965) and the adoption of the National Environmental Policy Act (Law 6.938 of 1981). In 1988, the country's legal framework was substantially revamped with the adoption of a new Federal Constitution. In it, an entire Chapter (Chapter VI, Article 225) is devoted to the environment. In fact, Article 225, para. 4 singles out the Atlantic Forest for special protection as it declares "*The Brazilian Amazon Forest, the Atlantic Forest, the "Serra do Mar", the "Pantanal Mato-Grossense" and the Coastline are part of the national wealth, and they shall be used, according to the law, under conditions which ensure preservation of the environment, including the use of natural resources.*" The 1988 Federal Constitution also provided expanded powers for the Federal and State Attorney General Offices (*Ministério Público*). These now have the status of independent agencies and have played a significant role in environmental enforcement, although optimal compliance is still to be achieved.

51. The legal framework for protecting the Atlantic Forest in Brazil has been the subject of intense debate. A comprehensive bill has been pending approval in the Brazilian Congress for 14 years. Recent information indicates that such approval (the bill was approved by the Brazilian Senate earlier this year) could occur soon. The current form of the bill comprises about 50 articles, and its objectives regarding the Atlantic Forest biome include *sustainable development; safeguarding biodiversity, human health, landscape, aesthetic and tourist values; hydrological regime and social stability*. The proposed bill requires that protection and use of the Atlantic Forest be undertaken in a compatible manner *for present and future generations*. It is worth noting that the bill requires the National Environmental Council (CONAMA) to issue, within 180 days of the bill's passage into Law, a definition of primary vegetation and secondary vegetation in initial, medium and advanced stages of regeneration. No intervention in such areas may take place until such definitions are officially issued. In addition to regulating conservation activities in the Atlantic Forest area, the bill provides detailed requirements for forest management depending on the purpose of the exploration, intended beneficiary of the exploration, stage of the recuperation of the forested area in question, etc. Finally, the bill proposes the creation of a dedicated fund to promote conservation of, and scientific research in, the Atlantic Forest.

52. Currently, the primary legislation guiding the use and protection of the Atlantic Forest is comprised of the Federal Decree 750 of February 10, 1993 and the National CONAMA Resolution 278 of May 24, 2001. Both pieces of legislation prohibit the cutting, exploitation or suppression of Atlantic Forest vegetation (primary or in advanced stages of regeneration), except for "public utility projects" or on a small, non-commercial scale, as defined in the legislation. Resolution 278 also suspended authorizations for cutting or otherwise exploiting endangered tree

species. The 1965 Forestry Code, as amended over time, also has relevant provisions regarding Legal Reserves, APPs and management of planted forests.¹³ In the case of removal or storage of wood or timber, an authorization from the relevant environmental authority is required. Exploration of planted forests is permitted under Brazilian law, including the Forestry Code referred to above, but its management, particularly in vulnerable areas such as the Atlantic Forest, requires strict observance of the applicable environmental legislation. Such requirements may include the prohibition of removing any vegetation in APPs (planted or native) or vegetation with the function of protecting endangered species of flora or fauna, and the preparation of specific technical studies.

53. Specifically applicable to the State of Paraná, Federal Regulation 507 of December 20, 2002 reinforces the restrictions set forth in Federal Decree 750 and defines, *inter alia*, the geographic areas that are targeted to potentially become Federally Protected Areas. Federal Regulation 507 cites as justification the results obtained from the National Biodiversity Program (PROBIO), which was financed with World Bank/GEF support (now closed).

54. The Bank has supported the government's long-term interest in the conservation of the area, primarily through the Pilot Program to Conserve the Brazilian Rain Forest (PPG-7) which has been in place since 1992. The Program has included activities in the Atlantic Forest, including past and ongoing projects where the representative of the Requesters, the RMA, and several of its affiliates have had a leadership role in implementation (see Box 1 below for additional information).

55. The Requesters state (Annex 1, Item 11) that “...*hundreds of native areas in an advanced stage of conservation were systematically destroyed, some of them under licenses issued by the State environmental agency, the IAP*”. While the Bank has been aware that the Araucária forests have been under threat (hence the

¹³ Permanent Preservation Area (*Área de Preservação Permanente* or *APP*) and the Legal Reserve (*Reserva Legal*) are concepts introduced by the 1965 Forest Code which, since particularly the year 2000, have been amended several times. According to Article 1, paragraph 2, II of the Code, an APP is a protected area regulated by the Code, covered or not with native vegetation, with the environmental function of preserving the water resources, landscape, geological stability, biodiversity, the flow of fauna and flora, soil protection and the well-being of human populations. Examples of APPs include forests and other forms of vegetation found around watersheds, rivers, lakes and reservoirs, hilltops, hillsides and wetlands.

The Legal Reserve is defined by Article 1, paragraph 2, III of the Code as an area located within a rural property or possession, necessary for the sustainable use of natural resources, the conservation and rehabilitation of the ecological processes, biodiversity conservation or the protection of native fauna and flora. The vegetation in the Legal Reserve area can only be used under a sustainable management regime approved by environmental authorities. In an attempt to reduce the alarming rates of deforestation in the country, particularly in the Amazon region, the Code established that the property percentage to be allocated for Legal Reserve purposes is 80 percent in the Amazon Region, and 20 percent in the rest of the country, including the Atlantic Forest area.

rationale for the PBP), the Bank has not been made aware of specific reports of destruction of native areas within the project area. The Bank had not received any reports from the Requesters, the State of Paraná, or other parties regarding the specific occurrences noted in the Requesters' Letter prior to its receipt on March 21, 2006 from the Requesters.

Box 1. The World Bank and the Atlantic Forest of Brazil

In the last decade, World Bank support for conservation of the Atlantic Forest took place primarily through the Pilot Program to Conserve the Brazilian Rain Forest (PPG-7) which is partially financed by the Rain Forest Trust Fund, a fund administered by the Bank. In 1994, Demonstration Projects were launched, aiming at supporting local initiatives—of NGOs and municipal governments—for the conservation and sustainable use tropical forests in the Amazon and Atlantic Forest regions. The Demonstrative Projects supported 47 projects, with an investment of around US\$6 millions in the Atlantic Forest. Currently the Ministry of Environment is implementing a US\$800,000 preparation grant dedicated to launching the future bases of an Atlantic Forest Program, envisioned to be financed by other bilateral and multilateral donors.

The PPG-7 also had a specific objective of supporting the strengthening of regional networks of organizations from civil society. In Amazonia, that network was the Amazon Working Group whereas in the Atlantic Forest, it was the Atlantic Forest Network (Rede Mata Atlântica – RMA). Since 1996, the RMA has been the recipient of multiple Rain Forest Trust grants with the primary objective of strengthening the organization as a preferential partner in the policy dialogue related to the Atlantic Forest. In March 2004, the RMA participated, at the invitation of the World Bank, in a special session of dialogue between the World Bank and civil society on the occasion of ESSD Week.

Another relevant project of the PPG7 in support of conservation of the Atlantic Forest is the Ecological Corridors project. The Project, in the amount of US\$5 million, has as its main objective the promotion of large-scale conservation through establishment of ecological corridors in the States of Bahia and Espírito Santo, involving many civil society organizations in policy formulation and implementation.

In addition, the Bank also supports conservation in the Atlantic Forest through the Critical Ecosystems Partnership Fund (CEPF), which declared this “biodiversity hotspot” as a priority area. Since 2002, the fund has allocated about US\$8 million to 48 conservation projects implemented by non-governmental organizations in the region.

56. With regard to the Requesters' specific references to reported incidents of destruction of native areas in three places: Candói, Santo Antônio do Itatim (General Carneiro) and Palmas, Management has sought to learn more about these incidents. It has received assurances from IAP (noted in detail below in Box 2) that two of the three incidents were outside of the project area. The third occurrence was a case of legal harvesting of dried out and/or rotten trees in the project area.

57. Management has engaged with the Borrower since the request was received to identify issues that may have affected the project and actions that could be taken. Management is proceeding with the Technical Audit (noted above in the “Implementation” section) in support of the Mid-Term Review. Though degradation of native areas outside the Project Area does not affect the project and is outside the scope of the project, if widespread, it could affect the potential for future replicability of similar biodiversity approaches by the State of Paraná.

Box 2 Incidents Reported by the Requesters

In the Candói case, the Request claims that in 2004 IAP authorized the clearing of 255 ha and that all nearby lumberyards justified their inventory of Araucária with IAP documentation certifying that the timber came from planted forests. The Request claims that this contravenes the law. Management notes that this area is not located in the project area. In consultation with the State, Management was informed that an authorization for clearing was granted in 2002 for a small area, but that the owner logged a larger area and was sanctioned accordingly. Also according to the State, there have been no significant changes in land use in this municipality since project inception.

In the case of Santo Antonio do Itatim (General Carneiro), the Request claims that in March, 2003 IAP authorized the removal of *imbuia* trees from a particular area which was subsequently expropriated (August, 2004) with the aim of establishing a State Protected Area. The Request further contends that timber removal activity was taking place in August 2004. According to the Request, the authorization was given on the basis that the trees were “dried out and/or rotten.” Management notes that this area is located in the project area. In consultation with the State, Management was informed that an authorization to remove dead trees from the area was indeed granted in 2003 following a technically substantiated process. The State further informed that in 2005 the area was transformed into a State Park and is currently undergoing regularization.

Finally, the Request for Inspection states that “in 2005, an area of approximately 3,000 ha of natural fields (*campos naturais*) was destroyed near Palmas,” further indicating that such area was designated by a federal task-force to become a UC. Management notes that this location is not in the project area. In consultation with IAP, Management clarified that this area has been subject to fires of unknown origin, but that the area is in the process of regeneration. On April 3, 2006, the Federal Government established a 16,582 hectare Wildlife Refuge in the area. The PBP has supported discussion with farmers and civil society on the importance of the area’s biodiversity, increased fire protection and improved enforcement of the new protected area.

58. The findings and recommendations of the Technical Audit are intended to feed into the results of the Mid-Term Review. The Technical Audit is examining, among other issues, the extent of the reduction or disappearance of forest remnants of Araucária (see Terms of Reference for the Technical Audit – Annex 6). The terms of reference for the audit were developed in consultation with the State of Paraná and other stakeholders in May and June 2006. Consultants were hired in July 2006, and the Technical Audit is expected to be completed in late September 2006.

59. The Requesters state (Annex 1, Item 11) that there is an “... absence of a definition of the concept of biodiversity conservation in the execution of the Project”. The PBP has developed a well defined methodological approach to biodiversity conservation (as elaborated in Annex 5 to this Response). Through the activities implemented in the context of improved management of natural resources in the targeted micro-catchments, the project has established specific mechanisms to engage with landowners and other stakeholders at the local level on biodiversity issues. The PBP undertakes activities directed towards protection of native forest. Specific activities aimed at ensuring preservation of native forests on private properties include the following: identification of well preserved forested areas in the corridors; planting of seedlings of native species in privately owned areas to create connectivity between these areas; fencing of biodiversity-significant areas; and Rapid Ecological Assessments aimed at identifying and prioritizing further investments in privately owned areas in the three corridors.

60. Measures also include a comprehensive training and dissemination program (with over 3800 farmers trained since project inception), the establishment of transboundary Corridor Committees (covering several municipalities), collaborative arrangements developed with the organization that promotes the establishment of RPPNs, and the designation of a Technical Corridor Manager (recruited by IAP), for each of the corridors covered by the project. These activities, together with the conclusions of the Rapid Ecological Assessments currently underway, are expected to generate the basis for establishment of additional working arrangements with landowners of properties with remnants of significant biodiversity value.

61. Complementing the above activities focused on the selected project area, the project is also contributing to the overall enhancement of the functions of institutions involved in project implementation. In the context of the institutional strengthening component, the project has supported the establishment and/or improvement of monitoring and enforcement tools such as geographic information systems (GIS), the training of IAP technical staff and inspectors at the State and municipal level, and the purchase/provision of field equipment (vehicles, boats, GPS, etc.) for monitoring and enforcement. (Annex 3 demonstrates the following progress towards meeting project targets in this area: all the purchases of GIS images targeted under the project have been made; all planned training courses for IAP staff have been executed, with more than twice the targeted IAP staff trained [475]; all the targeted IAP [135] and municipal [41] inspectors trained; and, all 9 regional IAP offices have been connected to the Central Environmental Monitoring Unit through the information integration network.)

62. In sum, the State of Paraná and Management recognize the value of the Atlantic Forest as a global asset. Acknowledging that, historically, economic development has not taken place in a sustainable manner in the region, the State of Paraná has engaged, through initiatives such as the PBP, in support for conservation efforts and the identification and implementation of alternatives aimed at making endangered spaces compatible with existing and foreseen developmental pressures.

63. The Notice of Registration issued by the Inspection Panel cites the Natural Habitats Policy (OP/BP 4.04). Management underlines that the primary purpose of the OP 4.04 is to ensure that Bank supported projects help protect and enhance biodiversity. The policy limits the circumstances under which any Bank-supported project can cause harm to natural habitats, and prohibits support for projects that would lead to the significant loss or degradation of any critical natural habitats as defined in the policy. Considering the proactive measures to support natural habitats and the absence of identified project interventions that could cause any harm to, or loss of, such habitats, Management considers that the project is in compliance with OP/BP 4.04.

Supervision, OP/BP 13.05

64. Management considers that the project is in compliance with OP/BP 13.05 for the reasons set out below.

65. Recognizing that project implementation is the responsibility of the State of Paraná, Management agreed with state authorities that the pilot and innovative nature of the project required a special supervision effort. This decision resulted in the adoption of an intense supervision schedule, both in terms of frequency of missions and team composition. Management notes that:

- Since project effectiveness, to date over a period of 45 months, a total of 9 full supervision missions have been conducted, complemented by several partial or follow-up supervisions that were conducted as part of supervision missions for the Paraná Rural Poverty Alleviation and Natural Resources Management Project (Loan 4060-BR);
- The Bank's supervision team was multi-disciplinary, involving professionals with relevant experience in biodiversity, NRM, economics, institutional arrangements, and operational aspects of decentralized project implementation. Specific team composition is detailed in each project ISR; and,
- The multidisciplinary team consistently attended not only to all due diligence and fiduciary aspects of the project, but also provided considerable operational support and technical assistance.

66. Given the special nature of the project, which aims at developing mechanisms to effectively mainstream biodiversity conservation in the productive landscape (of which this project represents the first to be financed by GEF under this Strategic Direction) supervision was carried out in collaboration with representatives of several State institutions involved in project implementation, including SEMA, IAP, SEAB, EMATER, State Secretariat of Planning and General Coordination (SEPL), the Center for Coordination of Government Programs (CCPG), and the staff of the PIU. In addition, supervision missions carried out field trips to the project area, which included visits to local authorities, beneficiaries and other stakeholders, including NGOs in all three corridors targeted by the project.

67. As documented in the aide memoires for each supervision mission, the supervision team held working meetings with stakeholders at the state and local level and undertook field trips. Attention was given during supervision to assessing if the project was being implemented with due diligence and within the requirements of the development objectives and the Grant Agreement; identifying implementation issues and possible solutions; and monitoring performance indicators. The specific findings of each mission are detailed in the relevant aide memoires and ISRs. During 14 months of the period in question, the Task Team Leader was residing in Brasilia, allowing for closer and more frequent interaction with stakeholders.

68. The Requesters state (Annex 1, Item 21) that *“reports [on these issues], as well as a series of local initiatives aimed at explaining the situation and sensitizing the various levels of the State government and the World Bank team responsible for*

coordinating the Project have been made throughout the project's execution period. Those parties are fully aware of the approaches and arguments reported above." Throughout the project supervision period, up until receipt of the Requesters' letter of March 21, 2006, no specific cases of deforestation of native areas were brought to the attention of the Bank, nor was this raised as an issue during field trips and consultations with stakeholders in the region. With regard to the concerns expressed by the Requesters regarding the three incidents (noted above in Box 2), the Bank was made aware of these particular incidents through the Letter of March 21, 2006, as reflected in the ISR filed subsequent to the supervision mission that followed.

69. In June 2005, the project was downgraded to Moderately Unsatisfactory as a result of the implementation delays described in paragraphs 21-23, and a comprehensive Action Plan was prepared, including a subset of 42 indicators considered key to demonstrate improvement in project implementation. The substantial progress achieved between September 2005 and March 2006 on these indicators allowed the Bank to upgrade project implementation to Satisfactory (ISR dated June 29, 2006).

70. **Next Steps.** Management is committed to continuing intensive supervision efforts to assist the State of Paraná to further improve project implementation and identify mechanisms that could contribute to the objective of mainstreaming biodiversity conservation in agricultural areas. A Technical Audit is being undertaken as part of the Bank's stocktaking exercise with the Government of Paraná in preparation for the Mid-Term Review. The Technical Audit is expected to be completed by late September 2006, with consultations to follow. The Technical Audit will cost approximately US\$30,000.

71. Management expects that a specific set of complementary actions will be identified by the Technical Audit. Through a comprehensive dissemination and discussion process, the conclusions and recommendations of the Technical Audit will be evaluated and finalized by the Bank, the State of Paraná, NGOs and other project stakeholders. The operational aspects of implementing the final recommendations of the Technical Audit will be addressed by the Mid-Term Review (scheduled for November-December 2006), establishing the terms and conditions for the revised implementation schedule and allocation of remaining grant resources. Specific, planned short-term actions and their timeline are as follows:

- Inception of Technical Audit – August 1, 2006;
- Completion of first draft of Technical Audit – September 30, 2006;
- Dissemination and Workshop – by October 31, 2006;
- Mid-Term Review – November-December, 2006; and,

- Amendments to Project Manual and Grant Agreement (if required) – by January 15, 2007.

72. Since mid-July 2006, the Bank has been discussing with the State of Paraná the identification of potential instruments that could further ensure the effectiveness of the PBP in conserving Araucária forest remnants in advanced stages of succession. One possibility in this regard is the more extensive adoption of existing mechanisms such as RPPNs. On July 31, 2006, the State of Paraná expressed its agreement to this approach (Annex 7, Supervision Mission Aide Memoire of July 27 to August 1, 2006).

73. Thus, the results of the proposed Technical Audit discussed in this report are intended to further inform choices to be made by the State of Paraná regarding project investments that could focus more sharply on forest remnants in the Araucária corridor. Based on the final recommendations of the Technical Audit regarding the state of native areas in or adjacent to the current project corridors, the Bank and the State of Paraná are expected to discuss in the context of the Mid-Term Review potential additional project activities, including but not limited to the following:

- Expanding the current boundaries of the Araucária Corridor and adjustment, as necessary, to include in the PBP's investment program areas of significant forest remnants in advanced stages of succession on private lands;
- Undertaking a review of how the State of Paraná may further strengthen its environmental agency during the remaining project implementation period, with regard to enforcement and inspection;
- Increasing transparency through greater participation of stakeholders by: (i) establishment of an advisory project committee that includes private sector and civil society organizations; and (ii) improvement of the project's communication strategy.

V. MANAGEMENT'S RESPONSE

74. The Requesters' claims, accompanied by Management's detailed responses, are provided in Annex 1.

75. Management would like to highlight the challenge of promoting conservation in intensively developed areas with strong potential for agriculture and other highly profitable economic activities. Differences among stakeholders in conservation policy approaches, priorities, and trade-offs and uneven speed of project implementation are unavoidable constraints. The PBP encapsulates these challenges and proposes alternatives that fit the existing realities of rural Paraná.

76. The current Inspection Panel Request relates to the topic of accelerated destruction of native Araucária areas. This is an issue to which the State of Paraná and the Bank will pay increasing attention over the coming years. However the existence of circumstances in the State of Paraná that have allowed the current incidents raised by the Request to occur do not imply that the Bank has violated its operational policies, namely 4.01, 4.04, 4.36 and 13.05.

77. Evidence available to Management suggests that the Bank has consistently and fully applied its policies and procedures and has systematically and concretely pursued its mission statement in the context of the Project. In Management's view, the Bank has thus complied with the policies and procedures applicable to the matters raised by the Request, and the Requestors' rights or interests have not been, nor will they be, directly and adversely affected by the implementation of the PBP.

**MANAGEMENT RESPONSE TO THE REQUEST FOR INSPECTION
BRAZIL: PARANÁ BIODIVERSITY PROJECT**

**ANNEX 1
CLAIMS AND RESPONSES**

No.	Claim/Issue	Response
Natural Habitats – OP 4.04, Forestry – OP 4.36, Supervision – OP/BP 13.05		
Design		
1.	<p>Methodological changes were made soon after Project approval (Paragraph 4 of letter attached to the Request) that caused a redirectioning of activities, thus not allowing the achievement of originally expressed goals. This fact can be easily ascertained by checking the indicators established when the project was prepared (Paragraph 4 of the Request.)</p>	<p>Comment: The PBP is a pilot project aimed at identifying sustainable mechanisms to mainstream biodiversity conservation in productive landscapes. It received financial resources from a GEF grant (US\$8 million), and was conceived to be a demonstration project, with a highly focused geographical scope (see Map 1).</p> <p>The PAD notes that there are different approaches to ensuring conservation of biodiversity. In brief, these are: (a) an isolated protected areas approach, concentrating on conserving biodiversity in existing isolated patches; and (b) a corridors approach, building up interconnectivity between specific areas with existing biodiversity. Both of these were considered during preparation, and the second option was selected. This is discussed in the PAD under the heading Project Alternatives Considered and Reasons for Rejection, and the corridors approach is covered in greater detail in the “Strategic Approach” section of Annex 2 of the PAD. See also Annex 5 of this Response.</p> <p><u>Management has reviewed the implementation of the PBP and project indicators and considers that resources have been directed to activities consistent with the project design financing plan.</u> The PBP is following the original PAD endorsed by the World Bank and the GEF. In particular, project objectives continue to be those stated in the PAD, the working areas remain the same, the components are those stated in the PAD and the same indicators are being used to monitor progress.</p>
2.	<p>During the execution of the Paraná Biodiversity Project, a significant number of landowners have been reaching agreements with the State government that guarantee initial steps will be taken to restore degraded areas. And so, during the coming decades, if the restoration work that has begun is maintained, those areas may become native areas, but without any guarantee that they will have a truly significant biodiversity. (Paragraph 7 of letter attached to the Request.)</p> <p>If in the past few years during the execution of the Paraná Biodiversity Project energy was spent in planting millions of seedlings in the hopes of reconstituting the original landscape of areas that had been completely degraded and that exhibited extremely low biodiversity while, at the same time, in those same regions, the last areas that were still well preserved and rich in biodiversity are being systematically destroyed, what will be the results of an evaluation of this work that uses the indicators formally defined at the start of the Project? And with whom will the responsibility lie with respect to the results obtained from that evaluation? (Para-</p>	<p>Comment: By design, the PBP <u>concentrates resources on ensuring adequate protection and management of the native forest that already contains significant biodiversity more than on restoring degraded areas. The PBP does not suggest that the reforested areas themselves will contain significant biodiversity and does not support such an objective.</u></p> <p>Rather, the aim of restoration, supported by the PBP, is to promote connectivity and indirectly maintain viable populations of important biodiversity in the native forest areas themselves. As such, restoration is an important method of ensuring that significant biodiversity continues to exist in the large areas of native forest.</p> <p>The theory and evidence to support this approach as the optimal way to conserve fragmented habitats given limited resources is explained further in Annex 5 to this Response.</p>

No.	Claim/Issue	Response
	graph 10 of letter attached to the Request.)	
3.	No project action, or only sporadic action, has been directed to properties that had well-preserved areas either. (Paragraph 6 of letter attached to the Request.)	<p>Comment: Due to limited resources, the PBP necessarily could <u>not ensure interventions for increased support to all well-preserved areas</u>. Some areas received no PBP support, in order to afford other priority areas adequate protection. The areas that were chosen to be part of the Araucária corridor were chosen to achieve optimal conservation of biodiversity given the funds available.</p> <p><u>The PBP undertakes activities directed towards protection of native forest.</u> Specific activities aimed at ensuring preservation of native forests on private properties include the following: identification of well preserved forested areas in the corridors; planting of seedlings of native species in privately owned areas to create connectivity between these areas; fencing of biodiversity-significant areas; and Rapid Ecological Assessments aimed at identifying and prioritizing further investments in privately owned areas.</p> <p>In addition, the State of Paraná has already identified a series of small- and medium -sized properties that could greatly contribute to the stepping stone approach within the corridors; through the Mid-Term Review, the Bank and the State expect to define mechanisms through which the project could assist the State decision to support these landowners to create RPPNs within the federal private land protection legal framework.</p> <p>This topic is covered further in the responses under "Implementation" below and treated in more detail in Annex 5 to this Response.</p>
Implementation		
4.	One does not need to be an expert in biodiversity conservation to conclude that the US\$8 million has been used in a strategically mistaken manner. We emphasize that the biomes affected by the Project are on the threshold of disappearance, and there are no prospects of other opportunities in terms of time or money as positive as this initiative by the GEF/WB could be. (Paragraph 9 of letter attached to the Request.)	<p>Comment: Recognizing the threat to the Araucária biome, the Bank financed a <u>comprehensive study under the PROBIO Project</u> focused on this biome in the State of Paraná (referred to in the Request for Inspection as Fupef-UFP / Probio-MMA). This Study (2004) concluded that while there is no untouched primary Araucária forest in the State of Paraná, there are still 66,000 ha of forest in advanced successional stage.</p> <p>Given the pilot and demonstrative nature of the project, the areas targeted are in biomes highlighted for their importance to biodiversity conservation and also because of their potential to demonstrate an integrated approach to conservation in the State. <u>The PBP thus has generated the opportunity to produce concrete results in habitat conservation and restoration, and provide an example of how different State institutions and society could jointly develop conservation actions.</u></p>
5.	After four years of execution (the project was begun in 2002), there is an obvious lack of synchronization between what was originally proposed and the orientation given to the Project. (Paragraph 4 of letter attached to the Request).	<p>Comment: During the first half of the project implementation period (September 2002-early 2005), the State of Paraná implemented the GEF-financed biodiversity conservation activities of the project more slowly than the NRM activities. The relatively slower implementation of the biodiversity conservation activities was caused by a delay in agreement over procurement procedures between the new state administration in Paraná (which took office in January 2003) and the Bank. The delay did not affect the NRM activities of the project, since they were designed to use community participation methods on which the Bank and the state administration agreed. Agreement on procurement procedures for the GEF-financed activities of the project was reached in late 2004</p>

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		<p>when the Bank began accepting electronic bid submissions, making the Bank and the administration approaches consistent. The result, however, was an <u>18 month delay in the GEF-financed activities, and different rates of progress under the two parts of the project.</u></p> <p>As of July 12, 2006, the PBP had disbursed US\$3.95 million – just under half the total amount of the GEF grant of US\$8.0 million. This is less than the originally envisaged target of US\$7.5 million due to the delay in agreement over procurement procedures noted above. Following resolution of this procurement issue a four-month action plan was finalized in September 2005 with specific short-term goals for certain output indicators. (See Implementation Status and Results – ISR 9.) These indicators show over 90% achievement of these short-term goals.</p> <p>Annex 3 also shows all the original Input, Output and Outcome Indicators for the PBP, their final target values, intermediate target values – where defined – and their current values as of March 2006. <u>Taking into account the delay noted above, these indicators demonstrate that the achievement of project outputs is on track.</u></p>
6.	<p>During the past four years, there have been hundreds of reports of destruction of the remaining native areas in the biomes that were targeted by the Paraná Biodiversity Project. To curb that process, the Government of the State of Paraná adopted a policy of inspection, arguing that this would make it possible to stem the attack on the last areas in an advanced stage of conservation that still existed. Even so, the areas continued to be destroyed. (Paragraph 5 of letter attached to the Request.)</p> <p>[The three specific reports noted in the Requesters' letter refer to the municipalities of Cândói, General Carneiro, and Palmas.]</p>	<p>Comment: The project area is small compared to that of the overall Atlantic Forest in Paraná. This is especially the case for the Araucária Corridor (see Map 2 and description of the Araucária Corridor in Annex 5), which was defined as a result of an extensive preparatory process in which input from a number of experts was received.</p> <p><u>Through the Requesters' Letter of March 21, 2006, the Bank became aware of the three particular incidents, noted in the Letter, of potential destruction of remaining native areas in some Araucária forest areas. Management has looked into these incidents and to its best knowledge, destruction of native areas has not occurred in areas covered by the PBP.</u></p> <p>Management recognises that degradation of native areas, even those outside the Project Area could affect replicability of the corridor approach within the State. A Technical Audit, planned as an input to the PBP's Mid-Term Review, is examining, among other issues, the extent of the reduction or disappearance of forest remnants of Araucária (see proposed Terms of Reference for the Technical Audit – Annex 6). The terms of reference for the audit were developed in consultation with the State of Paraná and other stakeholders in May and June 2006. Consultants were hired in July, and the Technical Audit is expected to be completed in late September.</p>
7.	<p>Independent of these events, the Paraná Biodiversity Project is directing its efforts, focusing on the restoration of degraded areas and acting directly on properties that have been stripped of native areas (Legal Reserve and Permanent Preservation Area), and putting forth a broad effort at planting seedlings. (Paragraph 6 of letter attached to the Request.)</p>	<p>Comment: The project has focused on recreating connectivity between existing forests. The strategy to achieve this objective is to enrich native forests and replant areas deforested to promote this connectivity. This strategy is based on micro-catchment areas, where forest on both sides of the water course provides the best way, according to conservation theory, to repopulate degraded or depleted zones with native flora and fauna. For habitat restoration and in particular for forest recovery, seedling availability is usually a constraint owing to the insufficient number of nurseries, hence the project's activities to promote the propagation of native tree species.</p> <p><u>The PBP allocates 59% of its GEF resources to conservation ac-</u></p>

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		<p><u>tivities and 3% to restoration of degraded areas</u>. The remaining 38% is allocated to education and capacity building, control and protection, and project administration. The State of Paraná determined these allocations to the most effective in balancing preservation of existing forests and restoration of degraded areas where this is necessary to create connectivity.</p> <p>In the Araucária corridor, the PBP has allocated US\$79,000 for restoration of connectivity; these funds are being used to act directly on private areas that have been stripped of native forest. This is because restoration of such areas is vital in order to form a genetic link between native areas. In contrast, funding of UC activities in the Araucária corridor totals over US\$500,000, much of which is focused on protection of native areas. An additional US\$316,000 is allocated for UC management.</p> <p>Activities aimed at strengthening conservation and management of existing forest and at restoring degraded areas to create connectivity between existing forest areas have both advanced although the implementation of the activities was slowed down by procurement challenges. The PIU is making every effort to ensure even implementation of all project components.</p>
8.	<p>The absence of tools that would permit working directly with the owners of those lands of crucial importance to the conservation of biodiversity leads those owners to seek alternative uses for their properties in what is recognized as a more standard practice, thus resulting in their destruction. (Paragraph 37 of “Deforestation in Paraná” – attached to the Request.)</p> <p>Therefore, the efforts that the Paraná Biodiversity Project is making outside the policy approach of working with private landowners who possess areas of extreme importance may not achieve the conservation objectives for the biome. (Paragraph 38 of “Deforestation in Paraná” – attached to the Request.)</p> <p>The [accuracy of] this affirmation may be appreciated through the example of the work of restoring degraded areas. Even though a successful effort made it possible to plant native species in Permanent Preservation Areas where the native canopy had been removed, and those restored areas are serving as a bridge among areas in an advanced stage of conservation, the absence of a policy for protecting these better-conserved areas indicates a trend that chronologically is not supported in terms of results. (Paragraph 39 of “Deforestation in Paraná” – attached to the Request.)</p> <p>In other words, decades would be needed to transform the areas now in an initial phase of restoration into mature forest environments. But that process is not keeping pace the uncontrolled trend toward summary destruction of the last remnants that is going on right now, that has not been witnessed and does not need many more years before it is complete. These remnants will be de-</p>	<p>Comment: Implementation of key project actions requires direct involvement of farmers, either individually or organized along micro-catchments. For this the project builds on the extensive experience gained through the two Bank-supported Land Management projects, which worked with land owners in micro-catchments in the State. To date, through a highly participatory process, involving producers, State and municipal representatives and civil society at the local level, <u>a total of 12,350 farmers have become actively engaged in biodiversity conservation activities within micro-catchments</u>, and about 38,000 farmers have received training related to biodiversity issues.</p> <p><u>With respect to the PBP’s strategy of protecting better conserved areas, please refer to responses in items 1, 2 and 3 of this Annex.</u></p> <p><u>The Project’s strategy has focused on the existing Protected Areas (Parque Estadual das Araucárias, Reserva Florestal Estadual do Pinhão, Estação Ecológica Rio dos Touros), and on establishing connectivity within defined corridors.</u> Management believes that this is a coherent and technically sound approach to reach the Project’s objectives.</p> <p><u>The results of the proposed Technical Audit are intended to guide remaining project investments so that they focus as sharply as possible on critical areas for achieving project objectives. These could include privately held areas with Araucária forests</u> in an advanced state of succession. The results could also suggest adoption of existing tools such as RPPNs and SISLEG. Should the Technical Audit identify areas within the corridors critical for biodiversity conservation, these areas can be considered during the Mid-Term Review for incorporation into the PBP’s strategy for private conservation initiatives within the corridors.</p>

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	<p>stroyed before the areas under restoration are formed, which means that the measure adopted will no longer make any sense. (Paragraph 40 of “Deforestation in Paraná” – attached to the Request.)</p>	
9.	<p>To conclude, we see as a procedure of absolute priority a revision in the strategy of the Paraná Biodiversity Project that, although it is unable to resolve the serious structural, economic, political, and cultural demands involving the nature conservation agenda in the State of Paraná cannot, on the other hand, fail to make its limited investments so that they focus on what is of greatest pre-eminence in the battle for perpetuating the Araucária Forest biome. (Paragraph 41 of “Deforestation in Paraná” – attached to the Request.)</p> <p>Considering the objectives of the Paraná Biodiversity Project and the activities now being implemented, it could be easily concluded that activities aimed at effectively detaining the destruction process of the last existing preserved natural areas are not being implemented. Hence, the project objectives are far from being achieved. (Paragraph 7 of the Request.)</p> <p>Redirecting substantial project resources to the recovery of degraded areas, instead of carrying out activities focused on areas still well preserved, represents an unacceptable strategic error which could have grave consequences since it could lead to the loss of substantial resources during probably the last significant opportunity to make an effort to preserve the region’s biodiversity. It is important to note that destruction of natural areas is still ongoing, in some cases even with the endorsement of the Government of the State of Paraná, through its licensing unit, the Paraná Environmental Institute (IAP). (Paragraph 8 of the Request.)</p>	<p>Comment: The State of Paraná developed the project to advance the conservation of biodiversity in three key areas of the State of Paraná. <u>Given limited resources, the project cannot maintain all the remaining Araucária forest biome</u>, and this was never the intention of the project.</p> <p><u>As noted above, implementation of the PBP is following its original design, as set out in the PAD in agreement with the State of Paraná. This design balanced the allocation of activities between areas still well preserved with recovery of degraded areas (either through the promotion of connectivity or improvement of gallery forest along river banks).</u> The set of these activities targeted and executed does not deviate from those envisioned under the PBP’s original design, and these activities can achieve the PBP’s development objectives. Annex 5 contains further information about project design.</p>
10.	<p>The largest social damage caused by the misdirected implementation of the project is the loss of a unique opportunity to reverse or minimize the serious loss of biodiversity biomass in question, at least in the areas where the project is being implemented. This was the only major investment already directed to the plateau region of the State of Paraná, where practically all natural areas of this biomass have already been destroyed. Besides, opportunities to implement new modalities of public policy through innovative and effective activities for the conservation of the remaining natural areas, which would influence the behavior of the State’s inhabitants, are being lost. (Paragraph 9 of the Request.)</p>	<p>Comment: The PBP is a pilot initiative, and as such takes up the challenge to identify sustainable and innovative opportunities to minimize the loss of biodiversity in the Araucária biome by reversing this loss in the project areas. In pursuing this goal, <u>the PBP has made significant innovative options available to farmers in the Araucária corridor</u>, including: integrated planning within micro-catchments, shift to biodiversity-friendly production systems and farming infrastructure, direct financial incentives to contribute to biodiversity conservation (fencing, seedlings, etc), and specialized training and technical assistance.</p> <p>The PBP will also use the results of the proposed Technical Audit to widen the use of existing tools such as RPPN and SISLEG and continue to focus on innovative public policy approaches.</p>
Natural Habitats		
11.	<p>During that same period, hundreds of native areas in an advanced stage of conservation were sys-</p>	<p>Comment: The legal framework for protecting the Atlantic Forest in Brazil has been the subject of intense debate for over 14 years.</p>

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	<p>tematically destroyed, some of them under licenses issued by the State environmental agency, the IAP (<i>Instituto Ambiental do Paraná</i> - Paraná Environmental Institute). This destruction was accelerated by a questionable interpretation of environmental laws, by the absence of a definition of the concept of biodiversity conservation in the execution of the Project; by the strong political influence still present in the State as regards the use of native forests; by the impracticality of conducting a sufficiently effective inspection; by the continued possibility of gaining profits from the sale of timber; by market encouragement of the planting of soybean and <i>Pinus</i> sp. monocultures; and by the failure to take action with landowners to make arrangements under which their lands would not be the target of these conventional uses, inasmuch as these are the last existing remnants of biodiversity. (Paragraph 8 of letter attached to the Request.)</p>	<p>A comprehensive bill is now pending approval in the Brazilian Congress. Currently, Federal Decree 750 of February 10, 1993 and National Council on the Environment (CONAMA) Resolution 278 of May 24, 2001 prohibit the cutting, exploitation or suppression of Atlantic Forest vegetation (primary or in advanced stages of regeneration), except for "public utility projects" or on a small, non-commercial scale, as defined in the law. Resolution 278 also suspended authorizations for cutting or otherwise exploiting endangered tree species.</p> <p>Specifically applicable to the State of Paraná, Federal Regulation 507 of December 20, 2002 reinforces the restrictions set forth in Federal Decree 750 and defines, <i>inter alia</i>, the geographic areas that are targeted to potentially become Federally Protected Areas. Federal Regulation 507 cites as justification the results obtained from PROBIO, which was financed with World Bank/GEF support (now closed).</p> <p><u>The Request for Inspection alleges that the above framework has not been respected in the State of Paraná.</u> While the Bank has been aware that the Araucária forests have been under threat (hence the rationale for the PBP), <u>the Bank has not been made aware of specific reports of destruction of native areas within the project area. As noted above, the Bank had not received any reports from the Requesters, the State of Paraná, or other parties regarding the specific occurrences noted in the Requesters' Letter prior to its receipt on March 21, 2006 from the Requesters. Additionally, in consultation with the State of Paraná, the Bank received assurances that two of the three reported occurrences took place outside of the project area. The third occurrence was a case of authorized harvesting of dried out and/or rotten trees in the project area. (Discussed in detail below in Items 13, 14, and 15.)</u></p> <p>These assurances notwithstanding, Management has engaged with the State of Paraná to identify issues that may have affected the project and actions that need to be taken. <u>Management is proceeding with the Technical Audit (noted above in the "Implementation" section) in support of the Mid-Term Review, the purpose of which, among other activities, is to establish whether the valuable remnants of forests in advanced stages of succession are subject to destruction or unlawful logging authorizations. The findings and recommendations of the Technical Audit are intended to feed into the modifications suggested during the Mid-Term Review.</u></p> <p>Management underlines that the primary purpose of the Bank's Natural Habitats Policy (4.04) is to ensure that Bank supported projects take into account the conservation of biodiversity. In light of the above, and taking into account the proactive measures to support natural habitats and <u>the absence of identified project interventions that could cause any harm to, or loss of, such habitats, Management considers that the project is in compliance with OP/BP 4.04.</u></p> <p><u>The PBP developed a well defined methodological approach to biodiversity conservation (as elaborated in Annex 5 to this Response). Through the activities implemented in the context of improved management of natural resources in the targeted micro-catchments, the project has established specific mechanisms to engage with landowners and other stakeholders at the local level on biodiversity issues.</u></p> <p>These measures include a comprehensive training and dissemina-</p>

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		<p>tion program (with over 38,000 farmers trained), the establishment of transboundary Corridor Committees (covering several municipalities), the collaborative arrangements developed with the organization that promotes the establishment of RPPNs, and the designation of a Technical Corridor Manager (recruited by IAP), for each of the corridors covered by the project.</p> <p><u>These activities, together with the conclusions of the on-going Rapid Ecological Assessment (one per corridor), are expected to generate the basis for establishment of additional working arrangements with landowners of properties with remnants of significant biodiversity value.</u></p> <p>Complementing the above activities focused on the selected project area, the project is also contributing to the overall enhancement of the functions of all institutions involved in project implementation. In the context of the institutional strengthening component, the project has supported the establishment and/or improvement of monitoring and enforcement tools such as GIS, the training of IAP technical staff and inspectors at the State and municipal level, and the purchase/provision of field equipment (vehicles, boats, GPS, etc.) for monitoring and enforcement. For example, 41 Municipal Inspectors, 475 IAP staff and 1,114 Environmental Technical Advisors have received training.</p>
12.	<p>Even so, the IAP continued, and is continuing (as of August 2004) to authorize forest management and cutting of <i>araucária</i> and <i>imbuia</i> in quantities that far exceed the limits established by the resolution, including cutting in areas whose boundaries were drawn by Directive No. 507. (Paragraph 13 of “Deforestation in Paraná” – attached to the Request.)</p>	<p>Comment: In consultation with the State of Paraná, <u>Management determined that IAP adopted an interpretation of existing laws and regulations that allows for the cutting of planted Araucária trees.</u> Management understands that this legal interpretation could unintentionally provide incentives for the cutting of <i>native</i> Araucária trees, especially in the context of Federal Government initiatives to increase the size of UCs (private owners of native Araucária stands may be trying to cut such stands prior to their being integrated into UCs).</p> <p>The results of the Technical Audit will examine the impact of the current interpretation of the existing regulatory framework for Araucária logging and will be used to engage with Federal and State Governments and other stakeholders, including civil society, to identify options and potential approaches to ensuring appropriate regulation in the future.</p> <p><u>In the Candoi case,</u> the Request claims that in 2004 IAP authorized the clearing of 255 ha and that all nearby lumberyards justified their inventory of Araucária with IAP documentation certifying that the <u>timber came from planted forests.</u> The Request claims this contravenes the law. Management notes that this area is not located in the project area. In consultation with the State, Management was informed that an authorization for clearing was granted in 2002 for a small area, but that the owner logged a larger area and was sanctioned accordingly. Also according to the State, there have been no significant changes in land use in this municipality since project inception.</p>
13.	<p>[...] The removal of a large volume of <i>imbuia</i> and <i>araucária</i> completely ruins the Mixed Ombrófila Forest, and distorts the intent of Decree 3.453 of August 6, 2004, to “<i>preserve a significant sample of the Mixed Ombrófila Forest biome.</i>” ... Araucárias State Park will be a significant sample only of the transgressions committed against the</p>	<p>Comment: In the case of <u>Santo Antônio do Itatim (General Carneiro),</u> the Request claims that in March 2003 IAP authorized the removal of <u>imbuia</u> trees from a particular area which was subsequently expropriated (August 2004) with the aim of becoming a State Protected Area. The Request further contends that timber removal activity was taking place in August 2004. According to the Request, the authorization was given on the basis that the trees</p>

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	last remnants of that forest in Paraná and facilitated by the IAP. (Paragraph 22 of "Deforestation in Paraná" – attached to the Request.)	were "dried out and/or rotten." Management notes that this location is in the project area. In consultation with the State, Management was informed that an authorization to remove dead trees from the area was indeed granted in 2003 following the necessary procedures. The State further informed that in 2005 the area was transformed into a State Park and is presently undergoing regularization.
14.	More recently, in 2005, an area of approximately 3,000 hectares of natural fields was destroyed near Palmas. That area had already been selected by a federal government task force for designation as a conservation unit. (Paragraph 23 of "Deforestation in Paraná" – attached to the Request.)	Comment: The Request for Inspection states that "in 2005, an area of approximately 3,000 ha of natural fields (<i>campos naturais</i>) was destroyed near Palmas," further indicating that such area was designated by a federal task-force to become a UC. Management notes that this location is not in the project area. In consultation with IAP, Management clarified that this area has been subject to fires of unknown origin, but that the area is in the process of regeneration. On April 3, 2006, the Federal Government established a 16,582 hectare Wildlife Refuge in the area. The PBP has supported discussion with farmers and civil society on the importance of the area's biodiversity, increased fire protection and improved enforcement of the new protected area.
Forestry		
15.	<p>The advent of the Paraná Biodiversity Project, created specifically to combat the loss of biological diversity in this State, represented an unprecedented and very positive expectation that it would generate actions strategically oriented toward this end. Although it is carrying out activities of importance for conservation, it is believed that the priority focus of that effort should be the native areas of <i>araucária</i> forest that are in an advanced stage of conservation. (Paragraphs 33 and 34 of "Deforestation in Paraná" – attached to the Request.)</p> <p>This reasoning is supported by the fact that those last remaining areas contain the natural formations that are still the least altered of the biome and, therefore, are able to maintain, even if only partially, a more representative biodiversity than secondary areas or areas that have been completely degraded. This is also true because recent years have seen very heavy pressure from the market on those remaining areas.</p>	Comment: Recent scientific studies have indicated that many existing Araucária forest areas are too small to maintain viable populations of Araucária and other flagship species. Hence, <u>a priority focus on the protection of the native areas of Araucária forest, as proposed by the Requesters, would in fact go against the goal of preventing the loss of biodiversity associated with the Araucária forest</u> , as the many current forest stands are not large enough to maintain viable populations of different species.
16.	<p>This pressure can be summed up in four main activities:</p> <p>Illegal removal of native timber by local lumberyards;</p> <p>Management that results in deforestation;</p> <p>Implantation of monocultures of trees, after clear-cut deforestation;</p> <p>Implantation of agricultural monoculture, after clear-cut deforestation.</p> <p>(Paragraph 35 of "Deforestation in Paraná" – attached to the Request.)</p>	<p>Comment: <u>The PBP does not fund any logging or deforestation activities, legal or illegal. It also does not include any provision to support tree planting for commercial use, be it a monoculture or a mixed species field.</u> Although there are significant areas of plantation forest in the project corridors (forestry for pulp and paper) where logging is taking place, this logging is not supported by the project.</p> <p>The project supports the reforestation only of areas cleared before the project began. Such reforestation: (a) takes place in properties inside the corridor necessary to ensure the connectivity between natural areas; (b) uses a mix of more than 20 local species; and (c) creates permanent forested areas, in which no harvesting is permitted.</p> <p><u>In light of these facts, Management's considers that, OP 4.36 is</u></p>

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	<p>Those economic demands are very seductive in this region and represent huge investments. They also have plenty of political backing. And they prove that not even the laws that have been enacted, or the inspection effort, or even the environmental education activities are sufficient deterrents to the short-term destruction of areas of the Araucária Forest that are in an advanced stage of conservation in our State. (Paragraph 36 of “Deforestation in Paraná” – attached to the Request.)</p>	<p><u>not applicable to the PBP.</u> (Management’s view could be different if the new OP 4.36 had been in force at the time of PBP preparation.)</p> <p>Degradation of biodiversity is a long-standing issue in Paraná, with very strong forces and interests driving this process. The PBP is one of the instruments which the State of Paraná has for managing the variety of environmental challenges it faces. Although involving landowners and the wider rural population in the conservation of biodiversity is not an easy task, the PBP has helped increase the awareness of people living in key biodiversity areas regarding the benefits of conservation. Development of this awareness and the PBP’s support to institutional strengthening have been key contributions to the process of limiting the destruction of native areas in the PBP’s ecological corridors</p>
17.	<p>In 2002, the Ministry of the Environment published Ministerial Directive No. 507 that identified areas in Paraná that were to be given priority in the creation of conservation units in the Araucária Forest, areas that were supposed to receive special protection from environmental agencies. (Paragraph 4 of “Deforestation in Paraná” – attached to the Request.)</p>	<p>Comment: As noted in the section “Natural Habitats” above, <u>study results produced under PROBIO (financed with World Bank/GEF support) were a major input into the definition by Regulation 507</u> of the areas to be given priority in the creation of UCs in the Araucária forest.</p>
18.	<p>During field studies conducted in March 2004 to create the federal conservation units, a clear intensification of deforestation in areas that had been included in the directive was observed. Most of those deforestations were carried out with authorization from the IAP – Paraná Environmental Institute. A preliminary survey of the authorizations issued by various regional offices of the IAP, conducted with the support of the Technical Chamber created for this purpose, confirms the release of volumes hundreds of times greater than permitted by Resolution 278. (Paragraph 12 of “Deforestation in Paraná” – attached to the Request.)</p> <p>[The three specific reports noted in the Requesters’ letter refer to the municipalities of Candói, General Carneiro, and Palmas.]</p>	<p>Comment: <u>Since early July 2006, management has been in contact with State Authorities and was informed that there is no evidence of intensification of deforestation in the project area (Araucária Corridor).</u> With regard to the Requesters’ specific references to reported incidents of destruction of native areas in three places: Candói, Santo Antônio do Itarim (General Carneiro) and Palmas, Management has sought to learn more about these incidents. It has determined with information from IAP that two of the three incidents were outside of the project area. The third occurrence (noted in detail above in the “Natural Habitats” section) was a case of legal harvesting of dried out and/or rotten trees in the project area. (The Technical Audit noted above is examining, among other issues, the extent of the reduction or disappearance of forest remnants of Araucária.)</p>
19.	<p>These incidents represent only a very modest fraction of the volume of complaints observed in this short stretch of time. Findings of deforestation not authorized by the oversight bodies are common, and supplement what has been being destroyed with government consent. The existence of a serious crisis of ethical conduct in parts of the environmental agencies themselves is undeniable. (Paragraph 24 of “Deforestation in Paraná” – attached to the Request.)</p> <p>This situation is not of recent vintage, and it must be taken into consideration in making decisions on any type of conservation strategy in Paraná. How can we trust the licensing and inspection structure to ensure the untouchability of remnants that are protected by law if, in practice, what occurs in many cases is exactly the opposite? Even if we recognize that the existing efforts at licensing and</p>	<p>Comment: The issue of strengthening of inspection is covered in the “Natural Habitats” section above. Here it should be noted that inspection should be closely targeted at Araucária areas under consideration for inclusion into UCs.</p> <p>As noted in Item 10 above, through a highly participatory process, involving producers, State and municipal representatives and civil society at the local level, <u>the PBP has to date actively engaged a total of 12,350 farmers in biodiversity restoration activities within micro-catchments, and about 38,000 farmers have received training related to biodiversity issues. In this way, the PBP is making a significant effort to counteract the usually prevalent market pressures for conventional cultivation practices (monoculture and others).</u></p> <p><u>Additional financial incentives to be offered to farmers could include:</u> tax exemptions to those who maintain forest to partially offset the opportunity cost of not converting to crop production; the channeling of the Green ICMS to farmers through environmental</p>

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	<p>inspection are partially effective, how can we believe they will be sufficient to curb landowners who are regularly induced to shift to activities that are financially attractive and that entail the destruction of their native areas? (Paragraph 25 of "Deforestation in Paraná" – attached to the Request.)</p> <p>Finally, how can we, using conventional and historically inefficient mechanisms, deal with the continued increase in the clearing of land for agriculture, the impressive push to plant monocultures of trees, and the traditional practice of removing native timber? (Paragraph 26 of "Deforestation in Paraná" – attached to the Request.)</p>	<p>service payments; financing the up-front costs of establishing RPPNs (i.e., for inventory and administrative costs); and direct investment grant support for ancillary use of forest assets (e.g., eco-tourism).</p>
Supervision – OP/BP 13.05		
20.	<p>Given the [current] scenario, [the Requesters] ask[ed] that a Technical Audit be conducted without delay, to assess the results and adherence to the objectives of the Paraná Biodiversity Project, using the established indicators for the Project, as well as to evaluate the current situation as regards nature conservation in the State of Paraná, in the expectation that these will be made public and measures to direct the programmed actions will be implemented. (Paragraph 11 of letter attached to the Request.)</p>	<p>Comment: Management considers that the project is in compliance with OP/BP 13.05 for the reasons set out below. Recognizing that project implementation is the responsibility of the State of Paraná, Management agreed with state authorities that the pilot and innovative nature of the project required a special supervision effort. This decision resulted in the adoption of an intense supervision schedule, both in terms of frequency of missions and team composition. Management notes that:</p> <ul style="list-style-type: none"> • Since project effectiveness, to date over a period of 45 months, a total of 9 full supervision missions have been conducted, complemented by several partial or follow-up supervisions that were conducted as part of supervision missions for the Paraná Rural Poverty Alleviation and Natural Resources Management Project (Loan 4060-BR); • The Bank's supervision team was multi-disciplinary, involving professionals with relevant experience in biodiversity, NRM, economics, institutional arrangements, and operational aspects of decentralized project implementation. Specific team composition is detailed in each project ISR; and, • The multidisciplinary team consistently attended not only to all due diligence and fiduciary aspects of the project, but also provided considerable operational support and technical assistance. <p>A Technical Audit is being undertaken as part of the Bank's stock-taking exercise with the Government of Paraná in preparation for the Mid-Term Review. The Technical Audit is expected to be completed by late September. It will cost approximately US\$30,000.</p> <p>Through a comprehensive dissemination and discussion process, the conclusions and recommendations of the Technical Audit will be evaluated and finalized by the Bank, the State of Paraná, NGOs, and other project stakeholders. The operational aspects of implementing the final recommendations of the Technical Audit will be addressed by the Mid-Term Review (scheduled for October 2006), establishing the terms and conditions for the revised implementation schedule and allocation of remaining grant resources.</p> <p>Specific short-term actions include: Inception of Technical Audit – August 1, 2006; Completion of Technical Audit – September 30, 2006; Dissemination and Workshop – by November 15, 2006; Mid-</p>

No.	Claim/Issue	Response
		Term Review - December, 2006; and, Amendments to Project Manual and Grant Agreement (if required) – by January 15, 2007.
21.	<p>[The Requesters'] reports [on these issues], as well as a series of local initiatives aimed at explaining the situation and sensitizing the various levels of the State government and the World Bank team responsible for coordinating the Project have been made throughout the project's execution period. Those parties are fully aware of the approaches and arguments reported above. (Paragraph 13 of letter attached to the Request.)</p>	<p>Comment: The Bank has been closely supervising implementation of the project and has noted the implementation asynchronies across components as explained in several items above.</p> <p>Throughout the project supervision period, up until receipt of the Requesters' letter of March 21, 2006, no specific cases of deforestation of native areas were brought to the attention of the Bank, nor was this raised as an issue during field trips, consultations with stakeholders in the region. With regard to the concerns expressed by the Requesters regarding the three incidents (noted above in Box 2), the Bank was made aware of these particular incidents through the Letter of March 21, 2006, as reflected in the ISR filed subsequent to the supervision mission that followed.</p> <p>During the August 2005 Supervision Mission, the Bank organized a meeting between the PIU and relevant project stakeholders to discuss possible actions to be implemented within the scope of the project, to support the conservation of significant Araucária remnants and strengthening the partnership with RPPNs.</p> <p>During this August 2005 meeting, project stakeholders did not raise the issue of intensified Araucária deforestation. A PIU-drafted memorandum outlined a set of specific actions to be jointly executed by the PIU and project stakeholders although eventual disagreements on the geographic scope of these actions prevented the full implementation of the plan. The Mid-Term Review process will address the implementation of this plan and examine ways for the State of Paraná to bring it to full implementation.</p>

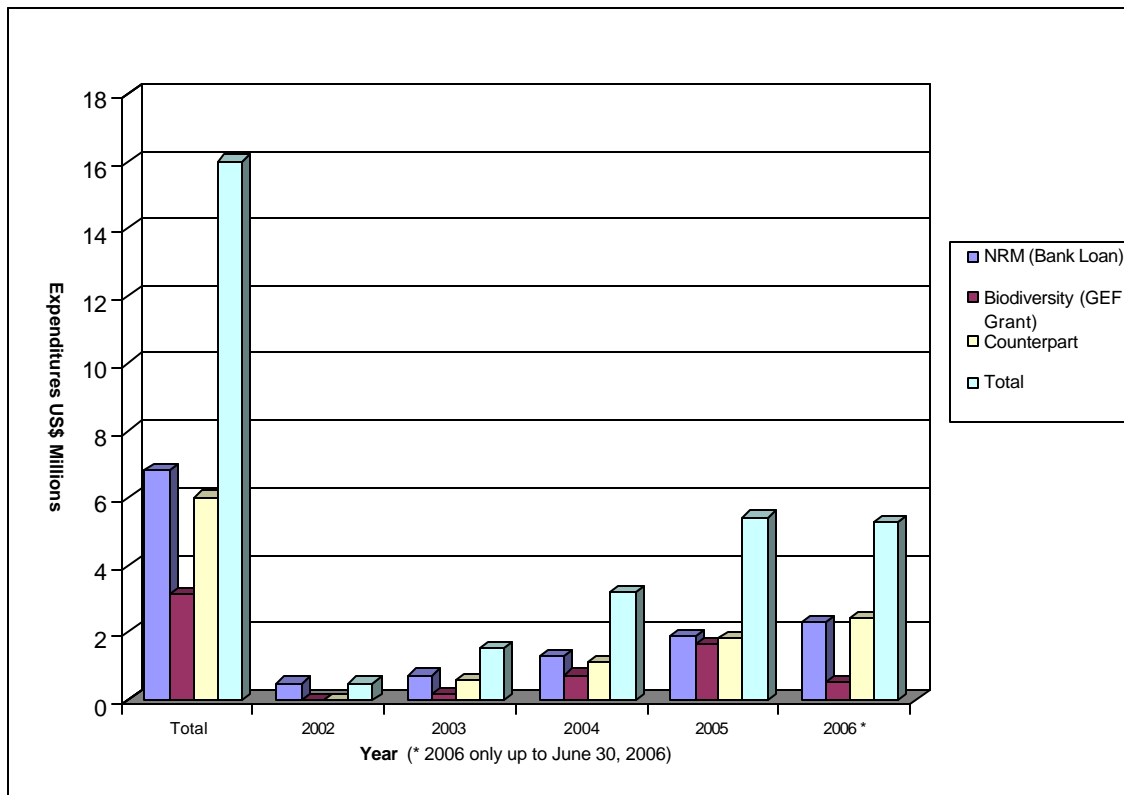
ANNEX 2 EXPENDITURES

Table ** Yearly Expenditures by Source

	Total	2002	2003	2004	2005	2006 *
NRM (Bank Loan)	6,818,472.47	504,802.56	764,380.85	1,309,862.82	1,920,487.81	2,318,938.43
Biodiversity (GEF Grant)	3,149,794.33	0	179,707.07	755,765.59	1,672,169.53	542,152.14
Counterpart	6,043,434.92	0	612,613.18	1,151,998.95	1,854,145.18	2,424,677.61
Total	16,011,711.72	504,802.56	1,556,701.10	3,217,627.36	5,446,802.52	5,285,768.18

2006 * is only expenditures up to June 30, 2006

Graph ** Yearly Expenditures by Source



As can be seen from Table ** and the associated Graph ** above, expenditures have been steadily increasing from the start of the project. In particular, the graph illustrates how, at the beginning of the project, far greater expenditures were being made from the IBRD loan than from the GEF grant. Following resolution of administrative issues in early 2005, this has been rectified and in the future, concentration should be on expenditures from the GEF grant as the IBRD loan has now closed. The graph also demonstrates the continuous provision of adequate counterpart funding.

ANNEX 3
INPUT, OUTPUT AND OUTCOME INDICATORS

#	Indicator	Unit	Final Target	Actual by Mar 2006	% of goal achieved	Comments
	INPUTS					
1.	Macro-strategic plans produced	Plans	3	2	67%	
2.	Demonstration Projects identified	Projects	40	41	102%	
3.	Micro-catchments planned	Micro-catchments	280	179	64%	
4.	Productive Units planned	Properties	19,600	12,938	66%	
5.	Central Environmental Unit Implemented in IAP	Units	1	1	100%	
6.	Agreements signed with Municipalities to implement decentralized inspection/enforcement	Agreements	-	-	-	No longer applicable as decentralization not being carried out. Instead replaced with Green Force.
7.	Riparian APPs identified (critical areas mapped)	Ha	84,000	-	-	In progress - requires agro-ecological models to be first developed.
8.	Satellite images purchased	Images	12	12	100%	Acquired with State funds
9.	Fauna teams equipped and trained	Teams	4	4	100%	
10.	Studies commissioned	Studies	5	3	60%	
11.	Concept Dissemination Seminars carried out:	Corridor 1 (Caiuá – Ilha Grande)	4	5	125%	
12.		Corridor 2 (Iguaçu – Paraná)	4	6	150%	
13. 14.		Corridor 3 (Araucária)	2	5	250%	
15.	Meetings to disseminate the project carried out	Meetings	654	761	116%	
16.	Courses to train the producers in the implementation of agro-ecological modules	Courses	20	23	115%	
17.	Seminars about replication of the model implemented	Seminars	3	-	-	Planned for 2006 following implementation of the agro-ecological models
18.	Environmental Education and Social Mobilization courses for professors and leaders	Courses	20	26	115%	
19.	Promotional contests to support implementation of sub-project	Contests	63	-	-	In progress - requires subprojects to first be well-developed.
20.	Biodiversity folders printed	Units	16,000	1,000	6%	
21.	Slide collections produced (5 copies each)	Collections	3	2	67%	
22.	Videos produced (5 copies each)	Video	5	13	260%	

#	Indicator	Unit	Final Target	Actual by Mar 2006	% of goal achieved	Comments
23.	Basic training courses for all agencies involved in implementation	Course	34	29	85%	
24.	Operational training courses for implementing agents	Course	12	13	108%	
25.	Environmental technical advisors receiving 120 hrs of training on agro-ecological modules (implementing agents)	Advisors	40 for 120 hours	40 for 100 hours	83%	Further training is ongoing
26.	Training courses for CU staff	Course	11	11	100%	
27.	Training courses for IAP Supervisors and municipal Environmental Inspection Agents	Course	-	-	-	Merged with indicators 24 and 25
	OUTPUTS					
28.	Training courses for officers of SEMA	Course	5	4	80%	
29.	Producers involved in the replication of agro-ecological modules	Producer	7,840	-	-	Planned for 2006 following implementation of the agricultural models
30.	Fauna Management Centers implanted	Center	1	-	-	Currently in progress
31.	Fencing installed in UCs	Meters	12,200	17,500	143%	
32.	Trails implanted	Meters	2,000	-	-	In progress pending Management Plan
33.	Elevated water tanks installed	Tanks	200	47	24%	
34.	Fencing installed in production units	Km	2,500	1,200	48%	
35.	Degraded areas with UCs restored	Ha	30	120	400%	
36.	Producers involved in restoration activities within micro-catchments	Producers	19,600	12,938	66%	
37.	Participants in Concept Dissemination Seminars (technicians, leaders and authorities)	Participants	820	37,311	4550%	
38.	Agro-ecological modules Implanted	Module	40	40	100%	
39.	Productive units within micro-catchments with their production systems adapted for biodiversity conservation	Property	7,840 Re-revised to 2700	1781	66%	
40.	Management plans finalized and reviewed	Plan	6	-	-	5 are currently underway
41.	IAP Regional Offices connected to the Central Environmental Monitoring Unit through the information integration network	Regional Office	9	9	100%	
42.	Biannual reports produced by the regional administrative units about licensing and inspection	Report	18	18	100%	
43.	Studies concluded	Study	5	1	20%	

#	Indicator	Unit	Final Target	Actual by Mar 2006	% of goal achieved	Comments
44.	Biannual project implementation reports produced	Reports	8	5	63%	
45.	Trainers trained (executing agents)	Trainers	380	-	-	In progress
46.	Inspections carried out by the decentralized municipal inspecting body in production units within the target micro-catchments	Inspections	6,000	-	-	In progress
47.	Municipal inspectors trained	Inspectors	30	41	137%	
48.	Biodiversity technical units set up	Units	63	62	98%	
49.	IAP staff (managers, UC managers, inspectors, etc.) trained	Trainees	200	475	238%	
50.	Environmental Technical Advisors and staff from other organizations (NGOs/Municipalities) trained	Trainees	540	1,114	206%	
51.	Producers trained	Producers	19,600	38,135	195%	
52.	Producers and other involved parties trained in agro-ecological modules	Producers	800	1,236	155%	
53.	IAP inspectors trained	Inspectors	135	135	100%	
54.	Promoters from the Public ministry of Environment trained	Promoters	80	177	221%	
55.	Content assimilated by trainees, measured through questionnaires related to the assimilation of project precepts.	Promoters %	70	80	114%	
		Environmental Agents %	80	80	100%	
		Professors %	70	80	114%	
		Rural Producers %	70	80	114%	
56.	Schools with projects implanted that participate in courses	%	60	30	50%	
OUTCOME						
57.	Infrastructure implanted in the UCs	M ²	710	-	-	To be completed in later stages of project
58.	Area involved in the implementation of the three target corridors	Ha	800,000	537,000	67%	
59.	Percentage of the total area worked on that transformed conventional production systems into production systems compatible with biodiversity conservation	%	40	-	-	To be completed in later stages of project
60.	Percentage of producers receiving training or assistance that get involved (adopt) in restoring the Legal Reserve or APP	%	40	-	-	To be completed in later stages of project
61.	Producers in surrounding or connecting micro-catchments	%	100	-	-	To be completed in later stages of

#	Indicator	Unit	Final Target	Actual by Mar 2006	% of goal achieved	Comments
	that get involved in the restoration efforts					project
62.	APPs restored	Ha	53,000	-	-	To be completed in later stages of project
63.	Target connectivity index value (area restored for connectivity purposes / fragmented area)	%	To be defined	-	-	To be completed in latter stages of project
64.	% of inspectors trained by year 4 in 23% of the municipalities of the AIDP	%	100	-	-	To be completed in later stages of project
65.	Management Plans implemented	#	6	-	-	To be completed – 5 are underway
66.	Annual increase in legal enforcement actions against transgressors of environmental legislation	%	10	-	-	To be completed in later stages of project

A look at the indicators in Table ** above shows that the project is progressing well towards meeting the Input, Output and Outcome goals laid out in the PAD. In particular, key indicators such as *Macro Strategic Plans Produced* (Indicator #1 – 67% complete), *Demonstration Projects Identified* (Indicator #2 – 102% complete), *Micro-Catchments Planned* (Indicator #3 – 64% complete), *Area involved in the Implementation of the Three Target Corridors* (Indicator #58 – 67% complete) show the progress made so far, although there is clearly still much that needs to be achieved with the remaining grant in order for the project to fully achieve its development objectives.

A closer look at the indicators also illustrates the way in which the various components of the project have developed at different rates.

For example, indicators concerning Natural Resources Management *Field Work* are generally well advanced: *Producers Trained* (Indicator #51 – 195% complete), *Courses to Train Producers in the Implementation of Agro-Ecological Models* (indicator #16 – 115% complete), *Agro-Ecological Modules Implanted* (indicator #38 – 100% complete), *Fencing Installed in Production Units* (indicator #34 – 143% complete) have already achieved their targets. These advances are because NRM activities benefited from being financed under the IBRD component of the project.

On the other hand, indicators concerning Biodiversity Management *Field Work* such as: *Environmental Education and Social Mobilization Courses for Professors and Leaders* (indicator #18 -115% complete), *Training Courses for UC Staff* (indicator #26 – 100% complete), *IAP Regional Offices connected to the Central Environmental Monitoring Unit through the Information Integration Network* (indicator # 41 – 100% complete), *Municipal Inspectors trained* (indicator #47 – 137% complete) or *IAP inspectors trained* (indicator #53 – 100% complete) only began showing progress in 2005 when solution of administrative issues enabled these components to be implemented.

The field work activities form the groundwork for the secondary outputs in both NRM and Biodiversity Management. These secondary outputs are essential if the project is to be successful. For instance under Biodiversity Management, *Riparian APPs Identified* (critical areas mapped) (indicator #7 – In progress) first requires the agro-ecological models to be developed and has only recently been able to progress. Under NRM, indicators such as *Seminars about Replication of the Model Implemented* (indicator #17 – Planned for 2006) also require agro-ecological models to be implemented before such dissemination and replication activities can be carried out.

In sum, the project, as shown by its indicators, has made good progress laying the groundwork in both its NRM and Biodiversity Management components. Further implementation using the remaining 51% of the GEF grant should ensure that this is consolidated and built upon, that the project's development objectives are achieved and that a replicable model for NRM and Biodiversity Conservation is produced and implemented.

ANNEX 4
INTERMEDIATE INDICATORS

Intermediate Input, Output and Outcome Indicators for the 4-month Action Plan agreed with the borrower to accelerate project implementation over the period September – December 2005.

#	Indicator	Unit	Final Target	Target by 12/2005	Actual by 12/2005	% of short-term target achieved
1	Macro-strategic plans produced	Plans	3	2	2	100%
2	Demonstration Projects identified	Projects	40	40	40	100%
3	Micro-catchments planned	Micro-catchments	280	200	176	88%
4	Productive Units planned	Properties	19,600	13,000	12,350	95%
5	Central Environmental Unit Implemented in IAP	Units	1	1	1	100%
9	Fauna teams equipped and trained	Teams	4	4	4	100%
10	Studies commissioned	Studies	5	3	2	67%
11-14	Concept Dissemination Seminars carried out:	Corridor 1 (Caiuá – Ilha Grande)	4	5	5	100%
		Corridor 2 (Iguaçu – Paraná)	4	6	6	100%
		Corridor 3 (Araucária)	2	5	5	100%
15	Meetings to disseminate the project carried out	Meetings	654	761	1,710	225%
16	Courses to train the producers in the implementation of agro-ecological modules	Courses	20	12	23	192%
18	Environmental Education and Social Mobilization courses for professors and leaders	Courses	20	20	23	115%
19	Promotional contests to support implementation of sub-project	Contests	63	15	0	0%
20	Biodiversity folders printed	Units	16,000	5,000	1,000	20%
21	Slide collections produced (5 copies each)	Collections	3	3	2	67%
22	Videos produced (5 copies each)	Video	5	3	13	971%
23	Basic training courses for all agencies involved in implementation	Course	34	25	29	116%
24	Operational training courses for implementing agents	Course	12	13	14	108%
26	Training courses for UC staff	Course	11	3	9	100%
28	Training courses for officers of SEMA	Course	5	4	4	100%
33	Elevated water tanks installed	Tanks	200	50	47*	94%
34	Fencing installed in production units	Km	2,500	2,000	1200*	60%
37	Participants in Concept Dissemination Seminars (technicians, leaders and authorities)	Participants	820	1407	37,311	2652%

38	Agro-ecologic Modules Im- planted	Module	40	20	32	160%
39	Productive units within micro- catchments with their production systems adapted for biodiversity conservation	Property	7,840	1207/27 00	1495/2700	124%
41	IAP Regional Offices connected to the Central Environmental Monitoring Unit through the in- formation integration network	Regional Office	9	9	9	100%
42	Biannual reports produced by the regional administrative units about licensing and inspection	Report	18	18/year	9	50%
43	Studies concluded	Study	5	1	1	100%
44	Biannual project implementation reports produced	Reports	8	6	5	83%
47	Municipal inspectors trained	Inspectors	30	15	41	273%
48	Biodiversity technical units set up	Units	63	62	62	100%
49	IAP staff (managers, UC man- agers, inspectors, etc.) trained	Trainees	200	200	475	238%
50	Environmental Technical Advi- sors and staff from other organi- zations (NGOs/Municipalities) trained	Trainees	540	890	1,114	125%
51	Producers trained	Producers	19,600	36,463	38,135	104%
52	Producers and other involved parties trained in Agro-ecologic Modules	Producers	800	300	1,236	412%
53	IAP inspectors trained	Inspectors	135	135	135	100%
54	Promoters from the Public min- istry of Environment trained	Promoters	80	100	177	177%
56	Schools with projects implanted that participate in courses	%	60	30	30	100%
58	Area involved in the implemen- tation of the three target corri- dors	Ha	2,151,175	800,000	528,000	66%

* Only calculated in March 2006 as part of the closing of the associated IBRD project *Paraná Rural Poverty Alleviation and Natural Resources Management*.

ANNEX 5 THE THEORY BEHIND CORRIDORS

1. Over the past century, human population increases have led to substantial encroachment into wild areas, forcing species out of their natural habitats and leaving only patches of natural forest amid urban or rural settings. Several herbivore species adapted to this situation, such as deer, rabbit and parakeet, as they could graze in the open fields. However, a large number of species, such as close-canopy birds, monkeys and marmosets, do not venture into the open field. Hence, these animals have ended up confined to the forest patch which becomes known as a habitat island.
2. Two pioneer conservation biology theories, island biogeography and metapopulation, can be used to describe what happens with the communities and species in such forest patches. The island biogeography theory (MacArthur and Wilson, 1967) established the density of species (number of species) based on the size of the island and its distant to significant land, showing that that number increases exponentially with area. The metapopulation theory, first proposed by Levins (1969), established how aggregations of a single species present in many patches of suitable habitat and with significantly less interaction between patches than within a patch can behave as a single population through genetic flow between patches.
3. Meanwhile, as the field of genetics developed, many species-related studies started to calculate the number of individuals of a species in a population (or metapopulation) that would be necessary to ensure the long-term viability of the species with negligible inbreeding and genetic erosion. For example, a classic study (Kleiman et al., 1990) by a group from the Smithsonian, University of Maryland and other research centers defined 2,000 individuals as the minimum sustainable size of the Golden Lion Tamarin (a species endemic to the Atlantic Forest of Brazil) population in the wild.
4. Thus, the concept of linking forest fragments, by establishing “biodiversity corridors” to increase the genetic flow of isolated species was proposed (Wilson and Willis, 1975; Soulé and Gilpin, 1991) to improve the chances of survival of species that lived isolated in forest fragments and to increase the density of species within those patches, thereby improving biodiversity conservation inside such areas.
5. A biodiversity “*corridor*” is defined as a mosaic of land uses connecting fragments of natural forest across a landscape. The objective of a biodiversity corridor is to facilitate the gene flow between populations, enhancing the long-term survival probability of biological communities and their component species. A corridor also is intended to ensure the maintenance of large-scale ecological and evolutionary processes. Mosaics of multiple land uses in a managed landscape can allow populations to move among proximate forest “stepping stones.”
6. There is an emerging scientific consensus that a regional landscape scale for conservation planning will significantly improve the chances for the long-term survival of biodiversity. Beier and Noss (1998) reviewed 32 corridor studies and concluded that, “The evidence from well-designed studies suggests that corridors are valuable conservation tools.” Other specific studies indicated that species that have low mobility between patches significantly benefit from the corridors, increasing migration between patches including that of bird-dispersed plants (Hadaad et al, 2003) and rodents (Mech and Hallett, 2001). Hadaad (1999) found that corridors not only benefited the migration of butterflies between patches but also increased the density of the populations within the patches.

Situation of the Araucária Forest in Paraná

7. A recent study (Castella and Britez, 2004), financed under another World Bank-GEF project, provides the most comprehensive and up-to-date information about the conservation status of the

Araucária forest in the State of Paraná. According to this study, the Araucária forest (“Floresta Ombrófila Mista” in the Brazilian terminology) originally covered 8.3 million hectares or 41 percent of the state, but currently there is no untouched primary Araucária forest remaining in the state and there are only 66,000 hectares of forest in advanced stage of succession (0.8 percent of the original area). Most of this forest is highly fragmented with the more important patches concentrated in the South-Central part of the State.

8. The State of Paraná is responsible for 23 percent of the country’s agricultural production, which takes place on about 370,000 properties. About 93 percent of these properties have less than 100 hectares and 42 percent have less than 10 hectares (Bittencourt et al, 2004).

9. The PBP’s approach is to build “biodiversity corridors” in critical areas of Inland Atlantic Forest in the State of Paraná. The PBP defines “corridors” as areas sufficiently large and “connected” to allow maintenance of existing biodiversity in areas of native forests or that are in an advanced stage of regeneration. The corridors are comprised of: (a) various types of protected areas (public and private); (b) fragments of preserved areas that are under private ownership; (c) “stepping stones” that are small, preserved or restored interstitial areas sufficiently close to one another to permit species to move freely between larger protected areas or fragments, thereby assuring biological connectivity; (d) contiguous forests along rivers that are essential for connectivity (and are protected by existing legislation); and (e) legal reserves on private properties in the interstitial areas (which are also protected by existing legislation).

10. The two eco-regions targeted by the PBP, considered as “global hotspots,” were chosen based upon a careful selection procedure that looked at:

- (a) global, regional and local importance of biodiversity;
- (b) diversity of ecosystems and habitats;
- (c) number and size of protected areas within the potential corridor;
- (d) degree of connectivity and proximity of protected areas; and
- (e) levels of endemism and richness of the species found in the area.

11. The largest planning and administrative unit in each targeted eco-region is the corridor. The basic corridor planning unit is the micro-catchment, an area of roughly 3,000 ha, comprising a drainage area and generally with one or more water courses. The smallest operational unit within the micro-catchment is the private holding. The PBP works with micro-catchments and private holdings to consolidate three corridors.

12. For each corridor, the PBP supported the development of strategic corridor management plans prioritizing areas and interventions. Using satellite imagery, the PBP is developing corridor maps that identify critical areas for intervention: (a) protected areas; (b) micro-catchments and other interstitial areas; and (c) identification of fragments and larger, fairly well conserved private holdings that can potentially be brought under a protected regime.

13. Aiming at promoting conservation in the Araucária Corridor, the PBP is supporting various interventions, as follows:

- A. Improve administration of the Public Protected Areas (UCs) that are the geographic core of the corridor:
 - (i) Develop and implement Management Plans – including management processes and outreach – to support biodiversity conservation within the UC and in contiguous areas;

- (ii) Equip UCs to effectively carry out their biodiversity conservation responsibilities, including small infrastructure projects and equipment;
 - (iii) Review of the public access and eco-tourism potential of the UCs, including infrastructure needs, and development and dissemination of promotional materials and other marketing activities; and
 - (iv) Carry out communications campaigns to reach populations living in areas contiguous to the UCs to acquaint them with knowledge on fire prevention and control, recuperation of degraded areas, alternatives to agrochemicals, and other threats to the integrity of the UC.
- B. Assist transition of rural properties in relevant interstitial areas to environmentally benign production activities:
 - (i) Develop and pilot alternative, environmentally benign productive systems in areas already cleared inside each property; and
 - (ii) Promote and support the adoption of these systems by targeted rural producers through dissemination, technical assistance and funding of individual and community projects in order to reduce the interstitial damage done by traditional agriculture and livestock activities.
- C. Promote connectivity of forest fragments in interstitial areas between protected areas through micro-catchment plans:
 - (i) Promote adoption of RPPNs, incorporating forest fragments in private properties into the corridors;
 - (ii) Mobilize authorities responsible for enforcing existing laws covering conservation of water sources, riverine forests, and legal reserves in targeted areas; and
 - (iii) Support the restoration of the forests protected by law (legal reserves, riverine forests, steep hillsides).

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ANNEX 6
TERMS OF REFERENCE FOR THE TECHNICAL AUDIT

1. INTRODUCTION

The Biodiversity Protection and Conservation Project (Paraná Biodiversity Project - PBP) is the result of Grant Agreement N° TF 051007, with resources donated to the Paraná State Government by the Global Environment Facility (GEF) and signed by the State Government and the International Bank for Reconstruction and Development (IBRD). The project has an expected duration of five years, beginning in 2003 and ending in 2007, with the first disbursement at the end of 2002.

The PBP is a project of the Paraná State Government, financed by a GEF grant (US\$8 million), with counterpart funding by the Paraná State Government (US\$24 million) from the Paraná 12 Meses Project. It is aimed at sustainable development, integrating nature conservation with the development of biodiversity friendly modern agricultural and livestock system with impact, promoting cross-cutting concepts associated with nature conservation, and generating a model of integrated action between environmental and agriculture institutions in the agricultural sector.

The project has defined work in three distinct areas: the first in the heart of the Araucária Forest (Mixed Ombrophyle Forest), the second in the Atlantic Forest of the Interior (Seasonal Semideciduous Forest), and the third in an area with both ecosystems. Corridors are Araucária Corridor, Caiuá-Ilha Grande Corridor, and Iguaçu-Paraná Corridor, respectively.

The project's objectives are to:

1. Promote biodiversity conservation and the sustainable management of natural resources in two ecoregions of the State of Paraná: Forest, Seasonal Semideciduous, and Mixed Ombrophyle Forest;
2. Develop and implement a model for the improvement of biodiversity conservation in Paraná; and
3. Establish biodiversity corridors, integrating conservation units among themselves and important fragments.

These three general objectives were subdivided into the following specific objectives:

- Conserve and recover biodiversity in the project area;
- Make existing productive systems compatible with biodiversity conservation;
- Properly manage conservation units, buffer areas, connection areas, and fragments of natural environments;
- Reduce threats to biodiversity through species protection and environmental control and monitoring;
- Train the actors involved in the project, including technicians, producers, public promoters, and inspectors, so that they have a better understanding of the issue of biodiversity and its importance; and
- Carry out a model that can be replicated statewide at the end of the project.

The project is being implemented through 4 main components:

- Incentives for Biodiversity Conservation and Management. The focus is on reducing threats to biodiversity through the introduction of good practices in managing rural properties, located in the project corridors with financial support to producers, direct incentives for the formation of sustainable cooperative enterprises (called agro ecological modules), and the recovery of permanent preservation and legal reserve areas, re-establishing connectivity between fragments of original ecosystems and protected areas of environmental relevance. This component also calls for the implementation of management plans in state conservation units and for a planning system that allows the state to define its conservation strategy.
- Control and Protection. The aim of this component is to develop with greater efficiency and a broader scope, public efforts to control the state's environmental quality, encourage civil society to participate in biodiversity conservation processes, and strengthen enforcement, licensing, and environmental monitoring systems.
- Education and Training of Society for Biodiversity Conservation. The objective is to raise the awareness of Paraná's society with regard to the importance of biodiversity conservation, training citizens to participate in and contribute to a process of recovering and maintaining the quality of ecosystems in the project's area of operation. It is a linking component whose function is to integrate management, incentive, control, and protection efforts, educating and mobilizing society with regard to a new development model.
- Project Management. This component foresees a set of studies aimed at outlining a legal framework and other information essential for the establishment of a technical, operational, legal, and sustainable strategy for biodiversity conservation in Paraná.

PBP is a multi-institutional project. The Project Implementation Unit (UGP) is located within the State Secretariat of Planning and General Coordination. The State Secretariats of Environment (SEMA) and Agriculture (SEAB) are the project executors, through their affiliated institutions Codapar, EMATER, and IAP.

SEMA is responsible for the project's environmental education program and for mobilizing leaders, working closely with the State Secretariat of Education and with municipal school associations.

SEAB is responsible for the State's counterpart contribution, ensuring financial and technical support to small farmers in the project corridors through the Paraná 12 Meses Project.

EMATER, the Technical Assistance and Rural Extension Enterprise, is in charge of planning rural space in biodiversity corridors, so that agricultural and livestock activities can be carried out in a sustainable manner, with minimum impact as possible on nature. It is also responsible for promoting the recovery of gallery forests and of forests on steep slopes and hilltops, negotiating with producers the allocation of the legal reserve, and training farmers in the development of more sustainable activities.

IAP, the Environmental Institute of Paraná, is responsible for the development of a series of activities aimed at the control and protection of flora and fauna, the management of conservation units, and the training of project technicians and those of other institutions on the importance of a new attitude toward the environment. Codapar, the Paraná Development Company, works as a financial agent, facilitating support to beneficiaries.

2. JUSTIFICATION

Project implementation began in October 2002 with the first transfer of funds by the Bank (US\$800,000) and an effectiveness date of October 31, 2002. On October 5, 2005, the State Government, through the

State Secretariat of Planning and General Coordination, established physical and financial targets for the last four months of 2005, in response to the “unsatisfactory” implementation rating by the Bank. The Bank decided to undertake a technical audit of the project and of biodiversity conservation conditions in the state, in order to understand the implementation of actions based on the original design, how it was implemented, the procedures adopted, the efficiency of the instruments used, and the level of execution of physical and financial targets. The state’s independent analysis of the status of conservation in ecosystems targeted by the project in the State of Paraná, the progress in achieving the targets established by the project, and State Government actions, will therefore make it possible to analyze information on the project in order to guide and make adjustments to operational mechanisms and to targets, if necessary.

3. OBJECTIVE

To perform a technical audit of the Paraná Biodiversity Project by hiring two consultants (one biodiversity specialist and one project management specialist), based on an analysis of the status of conservation of ecosystems targeted by the project, with special reference to Araucária forests, of the technical and operational procedures adopted, of the efficiency of instruments used, and of the level of execution of physical and financial targets, recommending adjustments, if necessary, in order to achieve project objectives.

4. CONSULTANTS’ ACTIVITIES

Using a work plan defined jointly with the IBRD project management team, the consultants should:

1. Analyze project documents, including the Contract, Project Appraisal, Operational Manuals, Annual Action Plans, project reports, aides-mémoire, and other documents that the IBRD may recommend.
2. Analyze the commitments assumed during project preparation, the targets and indicators established to make the project effective, and how these were met during implementation.
3. Review the originally defined indicators and their efficiency in measuring and gauging the extent of impacts on biodiversity, with special reference to originally established methodological procedures and their evolution if changes occurred.
4. Analyze the conservation status of ecosystems targeted by the project, especially of Araucária forests, and analyze their evolution from 2002 to the present.
 - Define in general terms the evolution of forest remnants between 2002 and 2006;
 - Confirm the existence of reduction or disappearance of forest remnants, especially in Araucária forests, within corridors and in ecosystem areas.
 - Analyze state policies for ecosystem conservation and of actions carried out as part of the project and as part of the state’s comprehensive policies for biodiversity conservation, use of native forest, efficiency of enforcement, the granting of environmental licenses, encouragement of production without environmental responsibility, citizens’ understanding of environmental legislation, etc.
 - Analyze the restoration of habitats and landscapes sponsored by the project through the use of saplings and isolation of forest areas as a conservation strategy, and the feasibility of conserving and restoring biodiversity.

- Analyze efforts to restore degraded areas versus work in well conserved areas to ensure their functionality.
 - Analyze the partnerships and alliances planned and established under the project's framework, aimed at addressing the sustainability of investments, especially agreements with private landowners.
 - Analyze the current or future feasibility of promoting biodiversity in degraded areas where the project is restoring habitats.
5. Share and discuss the view of conservation status with civil society and state and national academic institutions as well as international institutions with offices in the state.
 6. Discuss the project's scope with:
 - The UGP and with implementing/executing agencies (IAP, SEMA, EMATER), discussing the overall view of project execution and the progress of work;
 - The Secretaries of Environment, Agriculture, and Planning; Managers of EMATER, IAP, and EMATER, discussing the inclusion and cross-cutting nature of the project;
 - The project's operational structure in the field, conversing with Regional Council Coordinators (Heads of IAP's Regional Offices), Regional Biodiversity Coordinators in EMATER, EMATER's Environmental Technology Assistants and Presidents of Biodiversity Chambers, mainly discussing the project's operational model, and the integration and interaction in the field between environmental and productive stakeholders;
 - Beneficiary farmers, teachers, local leaders, and NGOs in the corridors, and public environmental promoters, to analyze their view of the project.
 7. Analyze the results achieved by the Paraná Biodiversity Project to date, using a matrix format to chart the actions of executors, state policies, and project components.
 8. Evaluate the reduction in threats to biodiversity in areas targeted by the project and the role of strengthening and monitoring in state actions.
 9. Analyze strong and weak points in project execution, especially with regard to originally established targets and indicators, methodological procedures implemented, and the final view of conserving and improving biodiversity in the State of Paraná's three corridors.
 10. Analyze the work plan for 2006, projecting the results and impacts of the project in light of its closing in January 2007, in accordance with proposed targets and indicators, and make necessary recommendations for the project's successful completion.

5. EXPECTED PRODUCTS OF THE AUDIT

Throughout the consultancy, the following products will be required:

- (a) A Work Plan which should contain a description of the work method and a timetable specifying the detailed actions to be carried out. This document should be delivered three days after the contract is signed and should be approved by the IBRD at a specific meeting with the project manager.
- (b) An initial diagnostic of the project's operational performance, taking into consideration its strategies, instruments, indicators, and current conditions of execution. This document should be delivered following contract signing, within 30 days of project signing.

(c) Final Assessment Report. This report should be delivered upon completion of the work and contain at least the following:

- Commitments assumed by the project, in light of the state's political and environmental situation.
- Identification of established targets and their evolution to date.
- Evolution of the environmental status, in particular of targeted ecosystems, within the state.
- Evaluation of targets achieved by components, and the impact on the conservation status of the state's ecosystems.
- Evaluation of executors by component and institutional policies of executing agencies in the ecosystem conservation.
- Identification of targets not yet executed and their impact on biodiversity conservation in the state, particularly in targeted areas.
- Recommendation on necessary adjustments to physical and financial targets, or on other project strategies with the consequent proposals for adjustments to the project's operational strategies and Operational Manual.

6. PROFILE OF EXPERTS

In order to carry out the required activities and obtain the expected products, the experts should possess a high level of education and broad experience in similar evaluations and audits of environmental projects, particularly those dealing with biodiversity conservation. Their experience should be proven by institutional and educational documents that attest to their technical skills in the evaluation of conservation and governmental projects. It is also desirable that experts be knowledgeable about preparing evaluations of projects financed by international agencies, particularly the IBRD and GEF, and be familiar with the biodiversity of the State of Paraná and the threats it is facing.

Proven experience will be required in the following areas:

- Management of projects with multilateral resources in national public or private institutions (a minimum of five years);
- Participation and leadership in rural development and biodiversity conservation projects;
- Analysis, evaluation, and preferably formulation of projects for multilateral donors in the area of rural development and biodiversity conservation.

Hiring shall be carried out in accordance with IBRD–World Bank regulations, under the terms of paragraph 5.2 of the Guidelines for Hiring Consultants, through a short list and an analysis of the candidate's curriculum.

7. AREA OF OPERATION

The evaluation work encompasses the project's areas of operation, with emphasis on the priority areas of project components and subcomponents, in accordance with a Work Plan proposed by the consultants and approved by the IBRD project manager at the time of contract signing. The three biodiversity corridors are located in the west, northwest, and southeast of the State of Paraná: Caiuá-Ilha Grande Corridor, Iguaçu-Paraná Corridor, and Araucária Corridor.

8. PERIOD AND SUPERVISION OF SERVICES

The period for the execution of services shall be 40 days, with the timetable of activities defined jointly with the IBRD management team. The work shall be performed under the supervision of the IBRD management team, beginning August 1 and ending October 30.

ANNEX 7
SUPERVISION MISSION AIDE MEMOIRE
JULY 27 TO AUGUST 1, 2006
(TRANSLATION)

1. A World Bank mission visited Curitiba, Paraná, on July 27 and 28, 2006, composed of Mr. Alberto Ninio (Lead Counsel) and Mrs. Adriana Moreira (Senior Biodiversity Specialist); and from July 30 to August 1, 2006, composed of Mr. Michael Carroll, Task Team Leader (World Bank, LC SER). Its objectives were to advance understanding on the content and phases of the technical audit to be contracted by the World Bank for the Paraná Biodiversity Project and to discuss with State authorities the means to address, through the Project, aspects previously raised by the Bank, and also reflected in the scope of the inspection request recently registered with the Inspection Panel of the World Bank.
2. The mission met with State Secretary of Planning and General Coordination, Mr. Nestor Celso Imthon Bueno, the State Secretary of Environment and IAP President, Mr. Lindsley da Silva Rasca Rodrigues, the CCPG Manager, Ms. Maria Inês Cervenka de Freitas, with Mr. Waldir Pan, and with the Project Implementation Unit (PIU) team.
3. The mission would like to thank State authorities, CCPG Manager, PIU's General Coordinator, Mr. Erich Schaitza, and the technical teams from the PIU and CCPG for their collaboration.
4. This aide memoire summarizes the main conclusions and recommendations from this mission, and, upon request, may be disseminated to other interested parties.
5. During the mission various actions undertaken by the project towards addressing specific situations faced by the Araucárias Corridor were discussed, aiming to build consensus for the conservation of existing fragments.

AGREEMENTS REACHED

6. Aiming at identifying instruments to improve the project's implementation procedures, the State of Paraná agreed with the Bank's proposal towards implementing the following actions:
 - Accomplishment of an independent technical audit of the project, to be carried out under Terms of Reference discussed and agreed upon with the State, whose final report shall be delivered by September 30, 2006. Among other points to be assessed, the audit shall examine: (i) the project's strategy and actions and their impact on conservation of remnant of forest fragments in the Corridors' areas, and (ii) project management and its institutional arrangements.
 - Discussion and public dissemination of results from the independent technical audit.
 - Assurance of wider participation from civil society in the implementation of the project by incorporating civil society representatives in the project's Advisory Committee.

7. Parallel to conducting the technical audit and implementing the recommended actions, the State has agreed to promptly initiate a series of actions seeking to ensure effectiveness of the project with regard to conservation of forest remnants in the Araucária corridor. Taking into account the project's budgetary constraints, several options were discussed, including: financial support for the creation, demarcation, regularization and sustainability of RPPNs (privately owned protected areas); inventory and support for the protection of forest fragments in advanced stage of conservation; and monitoring and surveillance of existing fragments in a good conservation status in the area.

By signing below we confirm our agreement:

Curitiba, July 31, 2006.

Nestor Celso Imthon Bueno
State Secretary of Planning and General
Coordination

Lindsey da Silva Rasca Rodrigues
State Secretary of Environment

Michael Carroll
Task Team Leader of the Paraná Biodiversity
Project - World Bank

Waldir Pan
Coordinator CCPG – State Secretary
of Planning and General Coordination

Erich Schaitza
General-Manager Paraná Biodiversity Project
State Secretariat of Planning and General
Coordination

PROJETO PARANÁ BIODIVERSIDADE

AJUDA MEMÓRIA

(27 DE JULHO A 1º DE AGOSTO DE 2006)

1. Uma Missão do Banco Mundial visitou Curitiba, Paraná nos dias 27-28 de julho de 2006 composta do Sr. Alberto Ninio (Advogado Principal para Meio Ambiente) e Sra. Adriana Moreira (Especialista Sênior em Biodiversidade), e nos dias 30-31 de julho e 1º de agosto de 2006 pelo Sr. Michael Carroll, Gerente do Projeto (Banco Mundial, LC SER). O objetivo da missão foi avançar nos entendimentos sobre a o conteúdo e as fases da auditoria técnica a ser contratada pelo Banco Mundial para o Projeto Paraná Biodiversidade, bem como discutir com as autoridades do Estado os meios de encaminhar, através do Projeto, aspectos já levantados anteriormente pelo Banco, e também refletidos no âmbito do pedido de inspeção recentemente protocolado junto ao Painel de Inspeção do Banco Mundial.
2. A missão reuniu-se com o Secretário de Estado do Planejamento e Coordenação Geral, Nestor Celso Imthon Bueno, com o Secretário de Estado do Meio Ambiente e Presidente do IAP, Sr. Lindsley da Silva Rasca Rodrigues, com a Chefe do CCPG, Sra. Maria Inês Cervenka de Freitas, com o Sr. Waldir Pan, e com a equipe da Unidade de Gerenciamento do Projeto-UGP.
3. A Missão deseja agradecer as autoridades estaduais, a Chefe do CCPG, ao Gerente da Unidade de Gerenciamento do Projeto-UGP, Sr. Erich Schaitza e as equipes técnicas da UGP e do CCPG pela colaboração recebida.
4. Esta Ajuda Memória resume as principais conclusões e recomendações da Missão que, quando solicitada, poderá ser disseminada para outras partes interessadas.
5. Durante a missão foram discutidas as várias ações que o Projeto vem desenvolvendo no sentido de atender as situações específicas enfrentadas no Corredor das Araucárias, buscando construir um consenso para a conservação dos fragmentos existentes.

ACORDOS ALCANÇADOS

6. Com o objetivo de identificar instrumentos para aperfeiçoar os procedimentos de implementação do Projeto, o Estado do Paraná concordou com a proposta do Banco no sentido da realização das seguintes ações:
 - Realização de uma auditoria técnica independente do Projeto, que trabalhe sob o Termo de Referência discutido e acordado com o Estado, cujo relatório final deverá ser entregue até a data de 30 de setembro de 2006. Dentre outros pontos a serem avaliados, a auditoria irá examinar: (i) a estratégia e ações do Projeto e seu impacto na conservação dos fragmentos florestais remanescentes nas áreas dos Corredores, e (ii) a gestão e arranjos institucionais do Projeto.
 - Discussão e divulgação pública do resultado da auditoria técnica independente.

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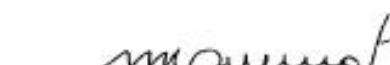
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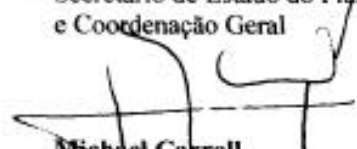
- Garantir uma maior participação da sociedade civil na implementação do Projeto através da incorporação de representantes da sociedade civil junto ao Comitê Assessor do Projeto.


7. Independentemente da realização da auditoria técnica, e, por conseqüência, da implementação das ações recomendadas, o Estado concordou em iniciar prontamente uma série de ações voltadas a assegurar a efetividade do Projeto no que concerne à conservação dos remanescentes florestais no corredor Araucária. Respeitando as limitações orçamentárias do Projeto foram discutidas alternativas destacando-se: o apoio financeiro à criação, demarcação, regularização e sustentabilidade de RPPNs; o inventário e apoio à proteção de fragmentos de remanescentes florestais em estágio avançado de conservação; e o monitoramento e fiscalização dos fragmentos em bom estado de conservação existentes na área.


E por estarem de acordo firmam o presente:

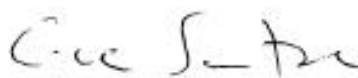
Curitiba, 31 de julho de 2006.


Nestor Celso Imthou Bueno
Secretário de Estado do Planejamento
e Coordenação Geral


Michael Carroll
Gerente de Projeto Paraná Biodiversidade
Banco Mundial


Lindsley da Silva Rasca Rodrigues
Secretário de Estado do Meio Ambiente


Waldir Pan
Coordenador CCPG – Secretaria de
Estado do Planejamento e Coordenação
Geral


Erich Schaitza
Gerente-Geral Projeto Paraná
Biodiversidade – Secretaria de Estado do
Planejamento e Coordenação Geral