GLOBAL ENVIRONMENT FACILITY

17023

Argentine Republic

Biodiversity Conservation Project

Project Document
September 1997

THE WORLD BANK

GEF Documentation

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Argentine Republic

Biodiversity Conservation Project

Project Document
September 1997

Country Management Unit
Argentina, Chile and Uruguay
Latin America and the Caribbean Region

CURRENCY EQUIVALENTS

Currency Unit - Peso (Arg$)

EXCHANGE RATE
(September 16, 1997)

US$1.00 = Arg$1.00
Arg$1.00 = US$1.00

FISCAL YEAR

January 1 to December 31

WEIGHTS AND MEASURES

The metric system has been used throughout the memorandum.

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Director: Ms. Myrna Alexander
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Team Leader: Mr. Robert Kirmse

This report is based on an Appraisal Mission carried out in July 1997. The World Bank core team included Robert Kirmse (team leader), Random DuBois (protected areas, FAO/CP preparation), Douglas J. Graham (biodiversity and information systems), Estanislao Gacitua-Mario (social and participation issues), and Rudy Van Puymbroeck (legal). The following specialists contributed substantively to project preparation: Richard Smith (protected area management), Guillermo Wood (Costab), Patricia Parera (social assessment and public participation), Alejandra Moreyra (buffer-zone activities), Gary Costello (social mitigation plan), Vicente Abreu (biodiversity information systems), and Jim Tolisano (institutional). The local preparation team was coordinated by Roberto Ronchietto and Hugo Iza. Document formatting was done by Greicy Amjadi.

ABBREVIATIONS AND ACRONYMS

ABCP	Argentina Biodiversity Conservation Project
APC	Área Protegido Copo
APLV	Área Protegido Los Venados
APML	Área Protegido Monte León
APN	National Parks Administration
APQC	Área Protegido Quebrada del Condorito
APSG	Área Protegido San Guillermo
Bank/FAO-CP	World Bank/Food and Agriculture Organization Cooperative Program
BCP	Biodiversity Conservation Project
BIS	Biodiversity Information System
CAS	Country Assistance Strategy
CBD	Convention on Biological Diversity
CC	Consultative Commission
COP	Conference of the Parties (to the Convention on Biological Diversity)
CZMP	Coastal Zone Management Project
DGCA	Dirección General de Coordinación Administrativa
DNCAP	Dirección Nacional de Conservación de Areas Protegidas
DNI	Dirección Nacional de Interior
DRFN	Directorate for Native Forests (within SRNyDS)
DTR	Regional Technical Delegation (within APN)
DTRP	Patagonia Regional Technical Delegation
EIA	Estudio de Impacto Ambiental
FAO/CP	FAO Cooperative Program
FUCEMA	Fundación para la Conservación de Especies y del Medio Ambiente
FVSA	Fundación de Vida Silvestre
GEF	Global Environment Facility
GEF Project	Biodiversity Conservation Project
GIS	Geographic Information System
GOA	Government of Argentina
GTZ	German Technical Assistance Agency
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
ICyT	Instituto Nacional de Capacitación y Tecnología
IDB	Inter-American Development Bank
IIA	Informe de Impacto Ambiental
IMA	Informe Medioambiental
INTA	National Institute for Agricultural Research
LATEN	Environmental Division of LAC (World Bank)
LIB	Limited International Bidding
MB	Mega Byte
MP	Mitigation Plan
NCB	National Competitive Bidding
NFPA	Native Forests and Protected Areas Project

NGO	Non-Governmental Organization
NPAS	National Protected Areas System
OED	Operations Evaluation Department
OP	Bank's Operational Policy
PA	Protected Area
PAP	Project-Affected Population
PAR	Project Audit Report
PCR	Project Completion Report
PIU	Project Implementation Unit (of the NFPA project)
POA	Annual Operating Plans
PP	Participation Plan
PRA	Participatory Rural Appraisal
PU	Project Unit
RDBMS	Relational Database Management System
SA	Social Assessment
SAS	Social Assessment Specialist
SAP	Social Assessment Program
SGN	Sindicatura General de la Nacion
SIDIF	Sistema Integrado de Información Financiera
SINAIA	Sistema Nacional de Información Ambiental
SINAPA	Sistema Nacional de la Profesión Administrativa
SOE	Statement of Expenditures
SRNyDS	Secretariat of Natural Resources and Sustainable Development
STAP	Scientific and Technical Advisory Panel (for the GEF)
TOR	Terms of Reference
UAI	Unidad Auditoria Internal
UNDP	United Nations Development Program
WWF	World Wildlife Fund
WWW	World Wide Web

ARGENTINE REPUBLIC

BIODIVERSITY CONSERVATION PROJECT

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PART I: PROJECT SUMMARY

ARGENTINE REPUBLIC--GLOBAL ENVIRONMENT FACILITY

BIODIVERSITY CONSERVATION PROJECT

GRANT AND PROJECT SUMMARY

Source of Grant:	Global Environment Facility Trust Fund (GEF Trust Fund)
Recipient/ Implementing Agency:	Argentine Republic/ National Parks Administration (APN)
Beneficiary:	Local communities, visitors to the national park system and national and international conservationists committed to protecting biodiversity of global importance.
Amount:	SDR 7.3 million (US$10.1 million equivalent)
Total Project Costs:	US$21.9 million equivalent (US$10.1 million GEF grant, US$11.5 million from GOA and beneficiaries, and US$289,000 PDF)
Terms:	Grant

Financing Plan:

Source	Total (US$ million)
GEF Trust Fund	10.1
Government Counterpart	11.1
Beneficiaries	0.4
GEF-PDF	0.3
Total:	21.9

Economic Rate of Return:	N/A; see Annex G
Map:	IBRD No. 28753
Project Identification No.:	AR-GE-39787

ARGENTINE REPUBLIC

BIODIVERSITY CONSERVATION PROJECT

1. BACKGROUND

COUNTRY/SECTOR BACKGROUND

1. Because of Argentina's extensive latitudinal and altitudinal ranges, and the resulting climatic variability, the country is characterized by a broad mix of ecological regions and rich biological diversity. Of the 178 terrestrial ecoregions in Latin America and the Caribbean identified in a recent World Bank/World-Wide Fund for Nature (WWF) study, 18 are found in Argentina. They range from the tropical rain forests of Misiones Province to the cold and arid Patagonian steppes of southern Argentina. While most are shared with adjacent countries, several are exclusive to Argentina, including most notably the Espinal, the Monte, the Pampas, and the Córdoba Montane Savannas (*Chaco Serrano*). Predictably, this diversity in ecoregions supports a large number of species of flora and fauna. For example, with a total land area of 2.7 million km^2 (two percent of the world's land surface), Argentina accounts for 12.2 percent of the world's gymnosperm species, 12.3 percent of the world's mushroom species, 10.9 percent of birds, and 8.7 percent of mammals. The country is particularly rich in endemic species, with more than 2,500 vascular plant species, 32 amphibian species, 53 reptile species, and 46 mammal species found nowhere else.

2. Argentina has long recognized the importance of these biological resources. Its national park system, the first in Latin America, dates back to 1903 with the donation of some 7,500 ha of private land to the State. This initial holding was subsequently enlarged and became the Nahuel Huapí National Park, the nation's first national park created along with the National Parks Commission in 1934. Other important milestones leading to the present national park system include the establishment of the country's other major southern parks—Lanín, Los Alerces, Perito Moreno, and Los Glaciares in 1937; the creation of the national school for park rangers in 1967; and the development of a national protected areas system (NPAS) in 1986. Today, the country's protected area system has grown to cover some 4.9 percent of the national territory (about 13 million hectares). Of this total, some 22 percent is in the federal park system, which currently consists of 31 national protected areas, while the remaining area is under provincial or other forms of local control.

3. In addition to their importance for biodiversity conservation, Argentina's national park system also represents an important economic resource. Several of the country's national parks and reserves are major tourist attractions which provide significant sources of revenue. Similarly, the area of native forests with commercial potential is estimated to cover some 15 million hectares; it produces about 7.3 million m^3 of wood per annum, equal to about half of the country's production.

4. Notwithstanding the global significance of the country's biological resources, their irrational use and over-exploitation continues at an alarming rate. Over the last century, it has been estimated that Argentina lost more than two thirds of its original forest cover. Deforestation continues unabated; the current loss rate is estimated to be 160,000 hectares per year. The Chaco is the forest ecoregion most at risk and, together with the Yungas, accounts for about half of the current deforestation in Argentina. The loss of non-forested habitat is also significant. This is particularly true in the Pampas ecoregion, where conversion of grasslands to extensive livestock production has reduced this natural ecosystem to only one percent of its original size. Similarly, it is estimated that more than one third of the Patagonian Steppe is severely eroded due to overgrazing by sheep and cattle, an issue of increasing concern in many of the country's other open habitats. At the species level, available information appears to support a similar pattern of irreversible loss. For example, in a recent study on the country's biodiversity species, 22 percent of Argentina's 2,355 vertebrate species were considered threatened or endangered.

5. While the existing system of protected areas is extensive in comparison to other countries in the Latin America region, a recent National Parks Administration (APN) analysis estimated that less than 21 percent of the total area under protection is adequately managed, 30 percent is under some form of management, and almost 50 percent (mostly under the jurisdiction of provincial or municipal authorities) receives very little or no management support. Moreover, the existing National Protected Areas System (NPAS) does not equitably represent many of the country's ecoregions considered to be of international significance in terms of their biodiversity. Examples of poorly represented ecoregions are the Pampas (0.2 percent of the original extent of the ecoregion is currently protected within the NPAS) and the Dry Chaco (0.5 percent protected).

Legal Framework and National Initiatives

6. The National Park Law (*Regimen Legal de los Parques Nacionales, Monumentos Naturales y Reservas Nacionales - Mensaje y Ley Organica*) No. 22.351 of 1981, provides the legal basis for establishing and managing protected areas (PAs) in Argentina. This law defines the management objectives and characteristics to be used to classify PAs into one of several conservation classes as described in Annex B. Land, water and biological resources designated as national protected areas can be declared on the basis of scientific importance, education, and the enjoyment of present and future generations. Each protected area must be officially designated with its own individual national law.

7. The Government of Argentina (GOA) has long demonstrated a commitment to protecting biodiversity. For example, the country is a signatory to a host of international conventions, including the Agreement on Wetlands of International Importance (RAMSAR, 1971); the Convention on International Trade in Endangered Species (CITES, 1973); the Convention for Conservation of Migratory Species (1979); and the Convention on Biological Diversity (1992). More recently, the Government hosted the Third Meeting of the Conference of the Parties to the Convention on Biological Diversity in

November 1996. In 1994 GOA began initial consultations with technical specialists within and outside government agencies to determine priorities for a national biodiversity strategy and a national protected area network. In September 1996 GOA received a UNDP-administered GEF grant to finalize the national biodiversity strategy, including support for a process of full consultation and participation of all stakeholders. Key elements of the strategy have already been identified and have been incorporated into the design of the proposed Biodiversity Conservation Project (BCP). These elements include:(i) strengthening and extending the protected area system; (ii) increasing national and local capacity in natural resource management, both in forested and non-forested areas; and (iii) promoting greater public participation in natural resource management.

Project Origin

8. Argentina faces a number of constraints in addressing environmental conservation issues. In particular, constraints on public spending have severely restricted government resources available for new investments in protected areas. Efficient management of the country's natural resources is also hampered by poor coordination between different levels of government, deficiencies in the policy and legal framework, and lack of technical expertise and established mechanisms for public participation and consultation. Recognizing these opportunities and weaknesses, the Government has proposed an integrated program which is composed of an IBRD-financed Native Forests and Protected Areas Project and a Global Environmental Facility (GEF)-financed Biodiversity Conservation Project (BCP). Specifically, the IBRD-financed Native Forests and Protected Areas Project (Loan 4085-AR) would pursue these issues by enhancing the policy, legal and regulatory framework governing native forests, by addressing information constraints to the sustainable use of native forests and conservation of biodiversity, and by supporting the modernization of APN as a national parks management entity. GEF support of the proposed Biodiversity Conservation Project would complement these objectives by making possible the formulation of an integrated and balanced approach to improved conservation of natural habitats containing biodiversity of global significance.

9. In brief, the associated Native Forest and Protected Areas Project (NFPA) comprises three components: (a) Protected Areas of National Importance, (b) Generation and Dissemination of Research and Information, and (c) Project Implementation. Under the *Protected Areas of National Importance* component, the GOA would assume the costs associated with the preparation of a plan to modernize APN as well as finance specific infrastructure developments and strengthening of management in four selected parks in Patagonia, including the strengthening of APN's regional technical office. Under the *Generation and Dissemination of Research and Information* component, the project would: (a) reform the policy, legal and regulatory framework affecting native forests; (b) implement a national inventory of native forests, and establish and operate a related database; and (c) conduct applied research and studies to facilitate the improved management and conservation of native forests and protected areas. Furthermore, the project would strengthen the capacity of the Forestry Directorate of SRNyDS (DRFN) and APN to manage and coordinate project implementation by establishing a Project

Implementation Unit which would assist the managers of DRFN and APN in implementing the project. The total cost of the NFPA project—including the loan amount of US$19.5 million as well as the GOA counterpart funding of about US$10.5 million—is US$30.0 million. Through the BCP, the GOA is requesting additional assistance from the GEF to cover the incremental costs associated with the creation and management of several priority protected areas which will bring long-term protection to parts of threatened and poorly represented ecoregions of global importance.

10. The initial project concept was justified in the Forestry Sector Review (Report No. 11833-AR, 1993). The GEF-funded activities were initially identified as part of the preparation process for the associated Native Forests and Protected Areas Project. A GEF-PDF Block B Grant for US$289,000 was approved by the GEF Secretariat in February 1996 and detailed preparation work was initiated later that year. The Biodiversity Conservation Project was approved by the GEF Council in March 1997 during the January 1997 Intersession, and entered the GEF work program. The key processing events are outlined in Schedule C.

2. THE PROJECT

PROJECT OBJECTIVES

11. The general goal of the project is to conserve biodiversity of global importance; the specific objectives are to: (a) expand and diversify the existing NPAS to include several of the country's most globally significant but inadequately protected ecoregions, and (b) create the conditions for their sustainable management through investments in institutional strengthening, refined mechanisms of consultation and participation, and improved biodiversity information management. As such, the project would comprise three components: (a) Protected Areas; (b) Biodiversity Information Management; and (c) Management, Monitoring and Evaluation.

PROJECT DESCRIPTION

12. **Protected Areas Component *(US$20.3 million)***. As noted previously, although Argentina's network of protected areas is extensive, it does not equitably represent many of the country's ecological systems. Some of the poorly represented ecoregions in the NPAS are considered to be of global significance in terms of biological diversity. The selection of candidate areas proposed for inclusion under the project was based on the following criteria: (a) their global importance for biodiversity conservation; (b) the degree of threat to the ecoregion; and (c) a complex of factors related to investment feasibility (e.g., provincial interest, cost of land purchase, support of local communities, and other institutional considerations; see Annex A for more detail on the selection methodology). This component would consist of three sub-components: (a) the establishment and consolidation of new protected areas in sites of global biodiversity importance, (b) sustainable development activities in PA buffer zones, and (c) activities to enhance public

participation in park planning and management (see Annex B for a detailed description and costing of this Component).

13. Under the Establishment and Consolidation of Protected Areas sub-component, five new national protected areas in poorly represented ecosystems of recognized global importance would receive support under the project. These proposed areas are: (a) *Área Protegido Los Venados* (this area in San Luis Province is the largest remaining remnant of relatively intact Pampas); (b) *Área Protegido San Guillermo* (in San Juan Province, the southernmost extension of the Andean Puna); (c) *Área Protegido Copo* (in Santiago del Estero Province, one of the last pristine areas of Semiarid Chaco in Argentina); (d) *Área Protegido Quebrada del Condorito* (in Córdoba Province, an area including a part of the Córdoba Montane Savannas, an ecoregion endemic to Argentina); and (e) *Área Protegido Monte León* (in Santa Cruz Province, an area of Patagonian Steppe and littoral and wetland habitat). A team of local and international biodiversity experts have confirmed the significance of these sites in terms of their global biodiversity importance. The special characteristics of these proposed areas are summarized in Annex B.

14. The project would support the establishment of a National Park at each of these selected site, for which the management strategy will be based on a policy of strict protection, but with provisions for the possibility of low-impact visits. Following the completion of legal establishment and land acquisition, livestock would be gradually eliminated from the parks and park rangers would be hired to manage visitor use and to control access, poaching and other types of illegal activity. These rangers would also conduct basic inventory and monitoring activities, paying special attention to key indicator species. Moreover, the project would develop partnerships with the local scientific community to monitor the effects of park management on flora and fauna. As such, the project would finance: (a) technical assistance for boundary demarcation, drafting of legal documents, preparation and implementation of operational plans, implementation of environmental assessments and other specialized studies and activities associated with the establishment and management of these areas; (b) limited equipment; and (c) small works. Works to be financed under the project would include the construction of observation points, interpretive trails, fencing, administrative offices and park ranger residences, and road repair. In most cases, provincial and/or national reserves associated with the "core" national parks will also be created. GEF support of US$7.0 million is proposed to finance incremental costs of this sub-component. GOA would provide counterpart funding of about US$9.9 million, most of which would be for the purchase of land.

15. Under the Sustainable Development Activities in Buffer Zones sub-component, the project would support improved community land use practices through pilot projects, studies, and support to extension activities. Pilot activities would consist of financing a variety of small activities (e.g., the testing of improved land management models, recovery of degraded natural grasslands, fire management, and the implementation of complementary biodiversity studies) that would contribute directly to the sustainable use and conservation of biodiversity in PA buffer zones. This component would also support awareness-building activities aimed at local communities living in and around the parks, thereby helping to increase local knowledge of, and support for, the parks themselves. In

most cases, funding for this sub-component would be made available on a competitive, cost-sharing basis to NGOs, universities, and government agencies working in collaboration with local landowners or rural communities. GEF funding of US$1.0 million is proposed to cover the incremental costs of this sub-component. The GOA, beneficiaries and partner institutions through matching grants would provide an additional estimated US$0.5 million in counterpart funding.

16. Public Participation Subcomponent. As an essential part of project preparation, an extensive stakeholder participation and consultation process was implemented with representatives of federal and provincial institutions, NGOs, rural families, local farmers, community organizations, and universities. This sub-component would play a central role to ensure the broadest possible public participation in the creation, protection and management of each protected area. This would be done through the implementation of a Participation Plan (PP--Annex B) and a Mitigation Plan (MP--Annex E) for the people who could otherwise be adversely affected by park establishment. Social mitigation costs will include training for alternative employment, employment in park management activities, and improved housing and living conditions for the people who would continue to live in the parks. GEF funding of about US$0.8 million is proposed to cover the incremental costs of this sub-component. The GOA would provide US$1.1 million, including US$0.9 million for the Mitigation Plan. Details on the MP can be found in Annex E.

17. **Biodiversity Information Management Component** (***US$654,000***). The ability to access and exchange information on Argentina's globally important biodiversity is an essential tool for their effective management and protection. The objective of this component is to provide decision makers, national as well as international, with ready access to relevant information for making informed decisions relating to conservation and sustainable use of biodiversity. This would be achieved by putting into place an internet-based biodiversity network to ensure national and global accessibility to Argentine biodiversity information. An IDB-supported Environmental Institutional Development Program is currently supporting the creation in Argentina of an internet-based national environmental information network (SINAIA). Within the context of this national environmental network, it is proposed that this component support the development of a biodiversity information system. This component would finance the development of prototype nodes within APN and provide the training and standards needed to extend the network nationally and internationally. The project would finance system development, limited hardware acquisition, and reconfiguration of existing databases (APN and other major databases). A major thrust of the component is a training sub-component to ensure the sustainability of the first node within this emerging network and thus the sustainability of a freer flow of biodiversity information both nationally and internationally. This sub-component would consist of: (a) promotion of the Biodiversity Information System (BIS) at the national level; (b) development of the BIS software; (c) adaptation of existing data bases to the BIS; and (d) capacity building and training. The development of this biodiversity network will be closely coordinated with the data bases being structured and created under the IBRD-supported project (i.e., database on native forests). GEF support of US$0.5 million is proposed to finance the incremental costs of this sub-component.

18. **Management, Monitoring, and Evaluation Component** ***(US$650,000).*** This component would finance technical assistance, equipment and incremental operational costs needed to strengthen the capacity of the implementing agencies to manage the overall program. It would also support scientifically sound monitoring of biodiversity at globally significant PA sites. GEF support of US$0.5 million is proposed to finance the incremental costs of activities under this component.

3. PROJECT COSTS AND FINANCING

PROJECT COSTS AND FINANCING

19. Total project costs are estimated at US$21.9 million, of which 94 percent would support establishment and management of protected areas (including their buffer areas), 3 percent for biodiversity information, and 3 percent for management, monitoring and evaluation. The proposed financing plan for the GEF project would comprise: a GEF grant of US$10.1 million to finance the incremental costs of activities that contribute to the achievement of global biodiversity objectives, US$11.5 million in counterpart funds or in-kind contribution provided by GOA and/or beneficiaries, and US$0.3 million PDF for project preparation. The estimated costs and financing plan of the proposed project are shown in Schedule A, Tables 1 and 2. Retroactive financing of eligible expenditures made after negotiations would be permitted for an aggregate value up to 10 percent of the grant amount. The amounts and methods of procurement and disbursement and the proposed disbursement schedule are shown in Schedule B. The incremental costs analysis and justification for the GEF grant are provided in Annex F.

PROCUREMENT

20. During negotiations, agreement was reached that: (a) the procurement plan would be included in the Project Implementation Manual (para. 58 (c)); and (b) the procurement of goods, works and services financed under the project would be undertaken in accordance with Bank Guidelines for Procurement under IBRD Loans and IDA Credits (January 1995, revised January and August 1996) and Bank Guidelines for the Use of Consultants (January 1997), using standard documents, satisfactory to the Bank, for procurement of goods and works under National Competitive Bidding (NCB); and Standard Letters of Invitation (SLOI) and standard forms of contract for consultant services (para. 58 (e)). Details on procurement arrangement are presented in Table B.1 of Schedule B and are summarized below:

21. *Works:* The procurement of works would consist of the rehabilitation of about 157.5 km of existing roads, the construction of about 4,785 m^2 of small buildings (park guard houses, visitor centers, control points, volunteer housing, mountain refuges), the construction of 46 km of fence, and the construction of about 40 trails/observation points. Construction and road works would be dispersed in remote locations and are difficult to package for International Competitive Bidding (ICB). Contracts for road work estimated

to cost a total of US$0.8 million would, to the extent possible, be bulked into packages valued at not less than US$350,000 and awarded on the basis of National Competitive Bidding (NCB). All other construction and rehabilitation works above US$350,000 would be awarded on the basis of NCB and all other construction and rehabilitation contracts below US$350,000 would be procured using lump-sum, fixed-price contracts, awarded on the basis of three price quotations. During negotiations, agreement was reached that all bidding documents and contracts for road works under the Protected Areas Component would incorporate environmental procedures acceptable to the Bank, to include, inter alia: (i) the applicable environmental and natural resource legislation and regulations; (ii) explicit prohibitions and environmental behavior guidelines for work crews, especially for work in sensitive areas; (iii) procedures for proper selection and management of quarries, borrow pits, gravel extraction along rivers, and other sources of construction material, and eventual rehabilitation of affected areas through soil replacement and revegetation; (iv) procedures for selection of camp sites, management of camp wastes, and guidelines for camp dismantling and abandonment; (v) procedures for proper disposal of excavated earth and spoil material to avoid contaminating streams or causing other unnecessary damage; and (vi) procedures for proper disposal of waste from construction machinery and equipment (para.57 (f)). During negotiations, agreement was also reached that the environmental procedures would be included in the draft Project Implementation Manual, which would be agreed at negotiations (para. 58 (c)). Also during negotiations, agreement was reached that prior to the commencement of civil works to be financed in any of the selected protected areas, APN would: (i) secure legal title to all lands for such new protected area; (ii) management plan for that PA, which would be in accordance with the Bank's guidelines on Natural Habitats; and (iii) obtain Bank's approval of the relevant environmental studies for civil works (para. 58 (d)).

22. *Goods:* The size of the contracts involved in the procurement of goods would be such that they could not be grouped into packages large enough to justify ICB. Therefore, the following procurement procedures would be used. To the extent possible, contracts for goods (mainly vehicles) would be bulked into packages valued at not less than US$100,000 and awarded on the basis of NCB, up to an aggregate amount of US$700,000. Contracts for equipment (e.g., computers and software, communications equipment, vehicles, and office, audio visual, and training equipment) valued at less than US$100,000, would be awarded on the basis of shopping procedures acceptable to the Bank. The use of shopping procedures for these goods is justified because of their standard specifications and availability from more than one source. All procurement using these shopping procedures would not exceed an aggregate amount of US$0.8 million. Contracts for the procurement of vehicles, technical equipment, and computer hardware and software would be awarded to agents or vendors with appropriate after-sales services, maintenance facilities and spare-parts supplies. All vehicles and motorcycles procured would include a four-year service contract.

23. *Consulting Services.* Consulting services, which would cost about US$3.2 million in total, would include environmental analyses and other specialized studies associated with the establishment and management of the PAs. Technical assistance, which would

cost about US$2.1 million in consultant fees, would include: (a) development of a biodiversity database; (b) implementation of the participation plan, including the costs of the consultative commissions; (c) preparation of legal documents for the establishment of PAs; (d) boundary demarcation and mapping; (e) monitoring and evaluation studies; (f) environmental/biodiversity studies; and (g) preparation and implementation of operational plans. Training, which would cost about US$0.6 million in consultant fees, would include the provision of on-the-job training as well as local short courses and seminars in database management, participatory park management, and conflict resolution. Project management, which would cost about US$0.5 million in consultant fees, would include the consultant services required for the PU to assist with project implementation. During negotiations, agreement was reached that the TORs of all consultants would include the obligation that they carry out their work on the basis, inter alia, of the Bank's Operational Policy (OP 4.04) on Natural Habitats and Operational Directive (O.D. 4.01) on Environmental Assessment, which would be incorporated into the Project Implementation Manual (para. 58 (a));

24. Buffer-Zone Grants. During negotiations, agreement was reached that Buffer Zone biodiversity subprojects contracts, estimated to cost up to an aggregate amount of US$1.3 million (includes US$0.4 million of beneficiary counterpart funding), would be procured following the selection and approval process described in the Attachment to Annex B (para. 58 (b)).

25. *Land.* Some 244,000 ha of land will be purchased by APN, from counterpart funds, for the establishment of the new protected areas. The total cost of this land purchase is estimated at about US$6.5 million; the appropriate GOA land procurement procedures will be followed.

26. **Bank Review**. During negotiations, agreement was reached that, regarding procurement, the process of Bank review outlined here would be followed (para. 58 (g)). All procedures, documents, Terms of Reference (TORs), bid evaluations, and contract awards would be subject to prior review by the Bank for: (a) procurement of works under NCB; (b) contracts under small works (i.e., three quotations) procedures where contracts are over US$150,000; (c) procurement of goods under NCB; and (d) procurement of consulting services costing US$50,000 equivalent or more for firms and US$30,000 equivalent or more for individuals. In addition, the first five Buffer zone subproject contracts, and thereafter all such contracts greater than US$100,000 equivalent, would be subject to prior review by the Bank. These prior review arrangements will result in prior review by the Bank of approximately 50 percent of all Bank-financed contracts by value. This low level of prior review is acceptable in light of the procurement audit arrangements outlined in para. 31. The Bank would review on an ex-post sample basis all other contracts awarded under shopping procedures; the sample size would aim to ensure that at least one contract in 20 would be examined. For research and study contracts costing less than US$100,000 equivalent, a copy of all signed contracts and related financial and technical audits and evaluations would be sent to the Bank, and at least 20 percent would be subjected to ex-post review. For consulting services costing less than US$50,000

equivalent for firms and less than US$30,000 equivalent for individuals, contracts would be signed based on a model contract and terms of reference previously agreed with the Bank. During negotiations, agreement was reached that the draft TORs for consultants, and a SLOI and standard form of contract, would be included in the draft Project Implementation Manual, which would be agreed at negotiations (para. 58 (c)) and finalized, with draft TORs, before effectiveness (para. 59).

DISBURSEMENT

27. Grant proceeds would be disbursed over eight years, in line with the standard disbursement profile for Bank-supported projects in Argentina. Therefore the project is expected to be completed by December 31, 2005; the closing date would be June 30, 2006. The allocation of the proposed loan and the disbursement percentages are presented in Table 2 of Schedule B. A Special Account for GEF grant disbursements would be established in the *Banco de la Nación Argentina* with an authorized allocation of US$1,000,000 equivalent. The initial deposit in the Special Account would be US$500,000 equivalent; the full authorized allocation would be deposited once the amount of grant disbursements reaches US$2.5 million equivalent. The Special Account should be used for all payments of less than 20 percent of the Authorized Allocation. Applications for replenishment of the Special Account should be submitted on a monthly basis or more frequently if the amount withdrawn from the Special Account exceeds one-third of its value. Disbursements for all contracts below the prior review limit would be made on the basis of Statements of Expenditure (SOE). The relevant documentation in support of SOE would be retained by APN, and would be made available to the appropriate auditors and Bank review missions. All other expenditures would be fully documented.

4. PROJECT IMPLEMENTATION

28. Overall responsibility for project implementation would rest with APN, and in particular with the National Coordinator appointed by APN. At the national level, the project would be implemented by APN with administrative and technical assistance from a Project Unit (PU), which would be coordinated with the Project Implementation Unit (PIU) of the associated Native Forests and Protected Areas Project. The establishment of the PU and the appointment of a technical manager and an accountant on terms and conditions acceptable to the Bank, would be a condition of effectiveness of the proposed grant (para. 59).

29. At the level of individual protected areas, the project will promote innovative management strategies to ensure cooperation between different stakeholders and institutions. The management structure would place a strong emphasis on institutional collaboration at both the national and provincial levels and would, in particular, encourage strong representation and participation from NGOs, private interests, and other stakeholders often unrecognized in the management of Argentina's protected areas. The generic

structure of the park-level management units required to achieve the aforementioned collaboration will consist of the creation of Consultative Commissions (CCs) in each park. The CCs would provide a formal mechanism for stakeholders to participate in the planning and decision-making process of park management, thus reducing the potential for conflict.

ACCOUNTS AND AUDITING

30. Under the overall direction of the manager of APN, the PU would maintain separate project accounts and records for each project component and sub-component and prepare Statements of Expenditures (SOEs). Supporting documents provided by the various entities concerned would be maintained by the PU and made available to visiting Bank missions and independent auditors, who could make field visits to entities concerned for the purpose of the overall audit. A standard chart of accounts would be prepared for the project.

31. Project accounts, including the Special Account and SOEs, would be audited annually in accordance with appropriate auditing principles and practices. Agreement was also reached during negotiations that the Borrower would hire independent auditors acceptable to the Bank, and that certified copies of their audits would be submitted to the Bank no later than six months after the end of each fiscal year (para. 58 (i)). The audit TORs will be included in the draft Project Implementation Manual (para. 58 (c)). TORs for procurement reviews will also be provided for in the Implementation Manual, which will ask the consultant to: (i) certify that procurement had been carried out using bidding documents agreed with the Bank; (ii) certify that procurement documents presented to the Bank for prior review were representative; and (iii) carry out a physical review of procurement actions taken under the project.

32. During negotiations, agreement was reached that APN would present to the Bank for review and comment, no later than June 30 each year, the draft POA for the project for the following calendar year (para. 58 (j)). During negotiations, agreement was also reached that at the end of each year APN would produce a Progress Report for the project, and in the middle of each year an Interim Progress Report, for submission to the Bank; these would be provided to the Bank not later than January 31 and July 31, respectively (para. 58 (k)). The Progress Reports would provide the basic information and data required for supervision missions and the Mid-Term Review.

MONITORING AND EVALUATION

33. The responsibility for project monitoring and evaluation, a task inseparable from effective project management, would rest with the APN national coordinator, who would be assisted in completing this task by the Technical Manager. Specific responsibilities will be detailed in the draft Project Implementation Manual (para. 58 (c)). During negotiations agreement was also reached on the project's monitoring indicators and plan (para. 58) as outlined in Annex D.

34. Periodic field assessments have been scheduled and budgeted under the Project's Management, Monitoring, and Evaluation Component for each of the protected areas. Reporting requirements would be designed to assist with the submission to the Bank of annual and semi-annual progress reports, the Mid-Term Review, and the ex-post evaluation of the project, namely, the Implementation Completion Report (ICR). Project performance indicators and measures of project impact would guide possible mid-course adjustments. During negotiations, agreement was reached that a Mid-Term Review would be carried out by November 2000 (Para. 58 (l)), focusing in particular on progress being made in the implementation of the participation plan (PP) and MP and in the legal transfer of land to APN for the establishment of the protected areas. During the Mid-Term Review, a sustainability plan would be designed to ensure GOA's continued support to the MP after project completion. The project's supervision plan is outlined in Annex I.

5. PROJECT JUSTIFICATION

RATIONALE FOR BANK AND GEF INVOLVEMENT

35. Dialogue on the Bank's country assistance objectives and strategy for dealing with native forests, other wildlands, and the protected areas system, began in 1992, leading to a Forestry Sector Review (Report No. 11833-AR, dated April 26, 1993) and to the identification of the proposed project. This sector work concluded that the Bank can be of great assistance to the government in helping it to develop and to implement an appropriate state role in the conservation and management of natural habitats. The proposed solutions to the issues that confront Argentine biodiversity and protected areas are fully supportive of the Bank's natural habitat, environmental, and sector policies.

36. The proposed project is also fully consistent with the Country Assistance Strategy (CAS), which was discussed by the Board of Executive Directors on May 4, 1995. The CAS highlights three broad objectives: (a) consolidating structural reform; (b) reducing poverty and strengthening social services; and (c) rebuilding infrastructure (including addressing environment issues). The proposed project would be the Bank's first GEF-funded project aimed at improving the conservation of biodiversity of global importance in Argentina. It would provide a vehicle for the Bank to pursue CAS objective (c) above by improving environmental management and protection.

37. In particular, the Project supports the *in situ* conservation and sustainable use of biodiversity, a key objective of the Convention on Biological Diversity. It is consistent with the GEF Operational Strategy for Biodiversity and with all four GEF Biodiversity Operational Programs. The proposed national parks for GEF assistance would protect arid and semi-arid ecosystems (the Pampas, the Puna, and the Patagonian Steppes); forest ecosystems (Córdoba montane savannas and the Chaco); mountain ecosystems (the Puna), and coastal, marine, and freshwater ecosystems (littoral and wetland Patagonian habitats). The project areas have been identified as national (and regional) priorities in previous conservation planning exercises, and strengthening and extending the nation's

protected areas system has been identified as a key element for the Biodiversity Strategy under preparation. The project is consistent with the Conferences of the Parties (COP) guidance on conservation and sustainable use of vulnerable ecosystems and species; capacity building, including human resource development and institutional strengthening; and innovative measures to conserve biodiversity, including government-private partnerships for land management. Furthermore, the Biodiversity Information Management component will contribute to the Argentine National Information Management responsibilities as defined in the Convention on Biological Diversity.

38. Links to other GEF Projects. The Government of Argentina (represented by SRNyDS) has received a UNDP-administered GEF enabling activities grant for the completion of a National Biodiversity Conservation and Sustainable Use Strategy. The Strategy will detail recommendations on policy formulation, application of appropriate economic instruments, environmental education, and the importance of public participation and consensus building in developing approaches to the sustainable use of biodiversity. The objectives and approach of the proposed project are compatible with these measures, and focus on priority sites identified during the first years of strategy preparation (1994-95). Because APN would assist SRNyDS in the drafting of the Strategy, close coordination between the World Bank-implemented and UNDP-implemented projects will be facilitated. Moreover, efforts will be monitored to ensure full consistency between strategy and actions.

39. GEF has also supported the Patagonia Coastal Zone Management Plan Project, which was executed by the Fundacion Patagonia Natural (FPN) and administered by UNDP. The primary objective of this US$2.8 million technical assistance project was to develop a Coastal Zone Management Plan for the Province of Patagonia. The plan prepared under the project specifically recommends that priority be given to better protection of the Monte Leon Reserve in Santa Cruz Province, as is proposed under this Biodiversity Conservation Project. Since the completion of the Patagonia CZM project, the Bank and UNDP have been coordinating efforts to prepare a Phase II program that would continue the participatory process initiated by FPN and take corrective action to address some of the problems identified in the CZM plan. The program under preparation would comprise: (i) a UNDP/GEF Patagonia CZM for Biodiversity Conservation Project (US$5.2 million), including the development and consolidation of legal and institutional frameworks, establishment of a network of terrestrial and marine protected areas with their corresponding management plans, incorporation of biodiversity conservation principles into coastal and marine sectoral development planning, the design of a Patagonia Conservation Trust Fund with corresponding economic instruments for capitalization, and an information dissemination network; and (ii) a World Bank-financed Pollution Management Project (about US$18 million) , and its associated World Bank/GEF Coastal Contamination Prevention and Control Project (estimated at US$5 million), which would address land-based sources of contamination, threats from petroleum and shipping, and unsustainable exploitation of fishing stocks. The UNDP/ Bank collaboration has helped to avoid overlap and to maximize complementarity between the BCP, the Phase II Patagonia CZM, and the proposed Coastal Contamination Prevention and Control Project.

SOCIAL ASSESSMENT AND BENEFICIARY PARTICIPATION

40. All families and communities in the core areas and a cross section of communities in the buffer zone areas were consulted during project preparation. In all but one of the proposed protected areas (Monte León[1]), interviews and surveys were implemented along with workshops to assess the interest and conditions for establishing new protected areas. These workshops, led by APN staff and specialist consultants, included participation from local NGOs, provincial authorities, federal agencies such as the National Institute of Agricultural Research (INTA), universities, and local community groups. Also during preparation, key stakeholders, the nature and magnitude of potential conflicts, possible mitigation measures, and likely mechanisms to facilitate future stakeholder participation were identified for each of the proposed protected areas. Additional details on the process and results of the methodology used during preparation can be found in the Social Assessment and Mitigation Plan Annex (Annex E). The information gathered by the Social Assessment was used to designing the Mitigation Plan. The Social Assessment also determined that none of the proposed new protected areas is on lands occupied or claimed by indigenous peoples.

41. These initial findings provided valuable input into the preparation of the project's Participation Plan (PP, see Annex B). The project will finance the incremental costs of implementing elements of the PP, which includes: (i) creation of Consultative Commissions (CCs) in each protected area; (ii) contracting a full-time social assessment and participation specialist; (iii) development of site-specific participation plans; (iv) training in a variety of areas related to protected area management, sustainable resource use, ecotourism development, participatory planning with key stakeholders; (v) studies and surveys in support of the implementation of the PP, (vi) monitoring the implementation of the Mitigation Plan to be carried out in core areas of *Condorito, Copo and Los Venados Protected Areas*, and (vii) monitoring and evaluation of the social and economic impacts of park management, investments, and sustainable development activities over time. Specific activities proposed under this Plan are detailed in Annex B.

THE MITIGATION PLAN

42. During the project preparation phase, a team of local specialists undertook a detailed socio-economic analysis of families and communities living in the proposed protected area sites and the buffer zones around those sites. While five studies were undertaken, APN and the local consultants focused their efforts on the core protected areas where people live and economic activities take place: *Condorito, Copo and Los Venados.* Among the principal objectives of the studies were to determine: (i) the number of people living on land to be declared a protected area, (ii) how they earn their livelihood, and (iii) the social-economic impacts of protected area creation and management. The team was also charged with evaluating whether resettlement of families currently living on

[1] During preparation it was determined that no individuals were living in either the Park or the buffer zone areas.

the sites of future national parks was a viable or desirable option or whether other management options existed that would permit them to remain in the same area. Based on that analysis, the team, in consultation with those families living within the confines of the new national parks, have worked on the basis that the people now living in the park could be incorporated into the management structure of the new protected areas and that resettlement would not, in principle, be needed. This decision is consistent with prevailing Bank policy as described in OD 4.30, and is the preferred policy option for APN. In order to prevent the negative social and economic impacts of park establishment, APN has prepared a detailed Mitigation Plan (MP) which will be agreed at negotiations (para. 58 (m)) for each of the above mentioned areas.

43. The major goal of the MP is to reduce the impact of park creation on those families and individuals who will be allowed to remain in the park. This impact includes loss of employment and other amenities provided by the employer. The categories which make up the MP are: (a) *Infrastructure Improvements;* (b) *Employee Compensation;* and *(c) Extension Activities. Employee Compensation* refers to APN's plan to hire workers as park guards and firefighters and to provide training for other park management related jobs. In addition, in the new parks where people are currently cutting timber for firewood or where some of their firewood needs are provided by the landlord, APN will provide wood or cover the costs for families to purchase gas or kerosene. APN would also provide technical assistance to help families and individuals maintain or improve their standard of living. Additional details on the specific activities and costs for the families living in each park can be found in Annex E . This Plan will be fully described in the Project Implementation Manual.

PROJECT SUSTAINABILITY

44. Sustainability of project benefits over the long term will be insured through: (a) the institutional modernization of APN, which will serve to increase that institution's financial sustainability, and hence its ability to provide continued institutional and financial support to the newly created protected areas; (b) the reform of the policy, legal and regulatory framework that affects native forests, along with the research-generated information supported by the NFPA project; (c) the strengthening of project management capabilities of both SRNyDS and APN; and (d) the initiatives to ensure local participation in all aspects of project design and implementation, which will help to ensure local benefits and hence interest in the success of the proposed activities. Moreover, the annual recurrent costs after project completion would be manageable (i.e., about 3 percent of APN's budget) and is consistent with the expressed commitment of APN.

LESSONS FROM BANK-WIDE OPERATIONS

45. The design of the proposed GEF project has been based on GEF-related experience from Argentina and on the larger information base derived from other relevant projects supported under the GEF Pilot Phase and other related environmental protection

projects in Latin America. The only completed GEF-financed project in Argentina is the previously mentioned Patagonia Coastal Zone Management Plan Project (CZMP). The main lessons derived from the CZMP project include: (a) the need to build on a strong, established organizational base; (b) project preparation and implementation should be carried out to the maximum degree possible through the use of local experts; and (c) the education of decision makers and the population generally on the role of and need to conserve natural habitats is vital to develop support for managing protected areas sustainably.

46. The key lessons derived from ongoing GEF-funded biodiversity projects elsewhere in Latin America support the need to: (a) expand the protected areas system to ensure the conservation of representative samples of global biodiversity; (b) facilitate direct biodiversity conservation activities by communities or groups of people who have a vital interest in conservation because their livelihoods depend on biological resources and/or their quality of life depends significantly on use and existence values of biodiversity; (c) establish realistic goals based on the existing capacity of counterpart agencies, avoiding overly complex projects; (d) involve local NGOs from the beginning of project design; (e) develop management capacity and establish a project implementation unit as soon as possible to facilitate disbursement; (f) plan for sufficient supervision time, taking into consideration the complexity of these types of projects; and (g) focus on field-level park personnel to improve morale and management effectiveness.

47. These lessons are also generally corroborated in the November 1995 World Bank report, Mainstreaming Biodiversity in Development: a World Bank Assistance Strategy for Implementing the Convention on Biological Diversity, and by the 1996 Bank report "GEF Pilot Phase Portfolio Project Implementation Review" which support the need for: (a) independent professional management of financial accounts; (b) more creative cooperation among implementing agencies and other global organizations working in the field of biodiversity; (c) provision for long preparation time required to achieve regional collaboration and build local ownership; (d) addressing land tenure issues and strengthening the legal framework which could constrain the effectiveness of management plans; (e) ensuring effective mechanisms for flow of funds to reserves; (f) participation by local communities in pilot productive activities in buffer zones; and (g) ensuring early on that the host implementing agency understands Bank procedures and guidelines. The design of the BCP has fully taken into account the recommendations detailed in these reports.

48. External STAP Review. An expert from the STAP roster reviewed the Initial Executive Project Summary (IEPS) in February 1995 and the revised project brief in October 1996 . In the review of the IEPS, the expert generally supported the project, concluding that the concepts of the sub-components were appropriate and technically feasible, and that the project provided an excellent opportunity for GEF investments on behalf of globally significant biodiversity. The expert agreed that the proposed project comprised the necessary elements for a cohesive program for biodiversity conservation. The expert suggested, however, that the social and political challenges faced by the project were not adequately identified and assessed in the initial project document, particularly

with regard to indigenous peoples' territorial rights and interactions with pre-existing small farmer settlements and private ranches. These concerns were addressed during project preparation. As recommended by the expert: (a) a social scientist played an important role on the project design team, focusing on the non-biological aspects of the project; (b) the preparation team assisted the GOA in assessing options for integrating buffer zone residents into park management; (c) the project design includes training for park guards in "people skills" such as conflict resolution, facilitation skills, and public relations; and (d) environmental education on park issues would extend to urban areas as well as to areas in the immediate vicinity of the protected areas. In addition, the network structure for the Biodiversity Information Management System has been designed to facilitate policy decisions related to land use planning, and project funding will allow for possible linkages with major databases outside Argentina in order to expedite identification and exchange of information on a global scale.

49. In the October 1996 review of the revised project brief, the STAP reviewer was satisfied that the earlier comments had been taken into account, that the relationship between the components had been clearly integrated, and that that new document promised a more realistic and feasible project. The reviewer pointed out that the project could in fact be innovative in Argentina by obtaining stakeholders involvement in the sustainable conservation of biodiversity.

ENVIRONMENTAL ASPECTS

50. Under the mandate established in Law No 22.351 and resolution No. 16/94, APN is responsible for environmental review and assessment of interventions in any protected area under its jurisdiction, including the construction and maintenance of public services and tourist infrastructure. Accordingly, agreement was reached at negotiations that, prior to APN commencing the implementation of any construction under this project, the relevant environmental impact analysis would be approved by the Bank (para. 58 (d)). The project is classified by the World Bank in Environmental Assessment Category "B" because infrastructure developments in protected areas are small and because of the small number (i.e., about 70) of individuals that will be directly affected by park creation.

PROJECT BENEFITS

51. The most direct and quantifiable benefit of the project will be the creation and sustained management of five new protected areas conserving biodiversity resources of global importance. Similarly, the project will provide the support required to establish the country's first biodiversity information network, creating a fundamental tool required to assess the existing situation and monitor change in both project and other protected areas and resources over time. The project is also expected to have significant positive impacts in supporting innovative approaches to biodiversity conservation through emphasizing collaborative approaches to protected area management between the public and private and NGO sectors, increased public participation, support for future protected

area creation, and the promotion of new sustainable land uses in buffer zones, thus reducing threats to protected areas.

52. The GEF will be funding only those activities that are considered not to generate direct national economic benefits; therefore an economic analysis is not required. There will be some local benefits generated by the buffer-zone sustainable development activities, such as improved pasture management, but these cannot be quantified at this time because the competitive selection process is yet to be implemented. Under the selection criteria, beneficiaries of the sustainable development activities would be required to cover the costs of direct benefits. Those families and individuals who will participate in the activities under the MP will also be direct beneficiaries of the project.

PROJECT RISKS

53. The major issue faced during project design was the need to move quickly to mobilize resources to protect key areas of biodiversity importance which are under imminent threat from agricultural, mining, and commercial forestry interests. However, unlike some countries in Latin America in which similar GEF investments are being made, country-wide agricultural or settlement policies are not a significant factor in contributing to habitat conversion. Rather, in a country with a relatively long tradition of creating national parks, the issues that need to be addressed are related to financial and institutional constraints to efficient management of the country's protected areas. Thus, the main activities to be undertaken under the project involve the provision of funds and technical assistance for the establishment and consolidation of new national parks and associated provincial reserves. The attitudes and actions of local stakeholders would determine the long-term sustainability of the protected areas supported under the project, and failure to fully consider stakeholders' interests is a risk. The project's emphasis on consultation and participation with local communities and other stakeholders, an innovative approach for APN, is expected to significantly reduce this risk.

54. A second major risk relates to the involvement and support of provincial governments. All the areas included in this project were selected in part because of strong provincial support. However, conservation has not been a high priority for provincial governments due to severe financial constraints. This risk is partially mitigated by the proposed establishment of a federally-managed national park at the core of each protected area and the proposed training and buffer zone activities which over time should help to establish substantial local support for these new parks. In some cases, the project would also provide support through shared resources administered and managed by APN (e.g., patrol vehicles which would cover both the national park and provincial reserve of a project-supported PA).

55. During preparation, significant attention was devoted to ensuring that the people currently living in the parks will be dealt with fairly and that they not lose their capacity to support themselves. In terms of the World Bank's Operational Directive 4.30 on Involuntary Resettlement, no one will need to be resettled because of the establishment

of the parks. Those who will be affected include a small number of landowners (all of whom are absentee landowners mostly living in Buenos Aires) and 10 of their workers (including family members) in the *Área Protegido Los Venados*, 36 individuals (seven families) in the *Área Protegido* Quebrada del Condorito, and 24 inhabitants (five families) in the *Área Protegido* Copo. During preparation, it was determined that APN's standard land purchase procedures are fair and equitable under Argentine law. In compliance with Bank policy, APN has prepared a Mitigation Plan to ensure that the workers living on lands to be purchased are able to maintain an equivalent or better lifestyle, mainly through employment training and opportunities in park management and protection activities. APN's considerable experience with land purchasing carried out over the last 60 years in other parks has been non-controversial and successful. These land purchase and mitigation arrangements are in compliance with OD 4.30 (Para. 58 (m)). Details on the MP can be found in Annex E.

56. A park-specific risk associated with the *Área Protegido* San Guillermo involves existing exploratory mineral rights (*cateos*) in the buffer zone areas contiguous to the national park. A recent revision of the mining code (Ley Nacional No. 24.585/95) requires the preparation of an environmental impact study before any mining activity is approved. Along with the required environmental study, the law also provides for the preparation of any necessary mitigation measures. Moreover, the protected areas conditionality in the ongoing Mining Development Technical Assistance Project (Loan 3927-AR), could be used as leverage if needed to protect the GEF's proposed investments in the PA under the Biodiversity project. Specifically, the Loan Agreement for the mining TA project requires the Borrower to: (i) ensure that no permits are issued for mining activities at any location that may affect materially and adversely, in the opinion of the Bank, the national protected areas (Section 3.10 (b); and (ii) prohibit any mining permits within Provincial Protected Areas (including the San Guillermo Provincial Reserve/Buffer Zone) with narrowly-defined exceptions subject to the Bank's approval (Section 5.01 (e)).

57. It is of concern that local people, including provincial officials, have a voice and play an active role in the planning and management of these new protected areas. This concern has been addressed by the provisions of the participation activities (which includes the creation of the Consultative Commissions and provides environmental and conflict resolution training) and the establishment of a funding mechanism to allow local people and scientists to participate in the development of sustainable development activities in the areas adjacent to the newly created parks.

AGREEMENTS REACHED

58. The following agreements were reached <u>at negotiations:</u>

(a) the TORs of all consultants would include the obligation that they carry out their work on the basis, <u>inter alia</u>, of the Bank's Operational Policy (OP 4.04) on Natural Habitats and Operational Directive (O.D. 4.01) on Environmental Assessment, which would be incorporated into the Project Implementation Manual (para. 23);

(b) in awarding sustainable development activity contracts, APN would follow the selection criteria, approval process and form of contract outlined in the Attachment to Annex B (para 24);

(c) selection criteria, approval process and a model form of contract for awarding sustainable development activity contracts, the mechanism for selecting members of the consultative commissions, the consultative process to be followed prior to approval of a management plan for protected areas, the draft TORs for consultants, a standard letter of invitation and forms of contract, the TORs and the allocation of responsibility for project monitoring and evaluation, environmental manual, Bank Operational Policy (O.P. 4.04) on Natural Habitats, Bank Operational Directive (O.D. 4.01) on Environmental Assessment, the audit TORs, and the draft procurement plan would be included in the draft Project Implementation Manual (paras. 20, 21, 26, 31, 33);

(d) prior to the commencement of civil works to be financed in any of the new protected areas, APN would have: (i) legal title to all lands for such new protected area; (ii) an approved management plan for that PA, which would be in accordance with the Bank's guidelines on Natural Habitats; (iii) Bank's approval of the relevant environmental studies for civil works; and (iv) Bank's approval of the park-specific Mitigation Plan (para 21, 50);

(e) the procurement of goods, works and services financed under the project would be undertaken in accordance with Bank Guidelines for Procurement under IBRD Loans and IDA Credits (January 1995, revised January 1996 and August 1996) and Bank Guidelines for the Use of Consultants (January 1997), using standard documents, satisfactory to the Bank, for procurement of goods and works under National Competitive Bidding (NCB); and standard letters of invitation and forms of contract for consultant services (para. 20);

(f) all bidding documents and contracts for road works would incorporate an environmental manual acceptable to the Bank, said manual to include, inter alia: (i) the applicable environmental and natural resource legislation and regulations; (ii) explicit prohibitions and environmental behavior guidelines for work crews, especially for work in sensitive areas; (iii) procedures for proper selection and management of quarries, borrow pits, gravel extraction along rivers, and other sources of construction material, and eventual rehabilitation of affected areas through soil replacement and revegetation; (iv) procedures for selection of camp sites, management of camp wastes, and guidelines for camp dismantling and abandonment; (v) procedures for proper disposal of excavated earth and spoil material to avoid contaminating streams or causing other unnecessary damage; and (vi) procedures for proper disposal of waste from construction machinery and equipment (para. 21);

(g) regarding procurement, the process of Bank review outlined in para. 26 would be followed;

(h) agreement on the Key Performance Indicators (Table D-7, Annex D) and the Supervision Plan (Annex I), which includes a Mid-Term Review (para. 33);

(i) the Borrower would hire independent auditors acceptable to the Bank, and certified copies of their audits would be submitted to the Bank no later than six months after the end of each fiscal year (para. 31);

(j) APN would present to the Bank for review and comment, no later than June 30 of each year, its draft POA for the project for the following calendar year (para. 32);

(k) at the end of each fiscal year, APN would produce a Progress Report for the project, and in the middle of each year an Interim Progress Report, for submission to the Bank; these would be provided to the Bank no later than January 31 and July 31, respectively (para. 32);

(l) a Mid-Term Review would be carried out by November 2000, focusing in particular on progress being made in the implementation of the Participation and Mitigation Plans (including the design of a sustainability plan), and in obtaining the legal transfer of land for the establishment of the new protected areas (para. 34); and

(m) the Mitigation Plan (paras. 42, 55).

59. The establishment of the PU and the appointment of a Technical Manager on terms and conditions acceptable to the Bank, and the completion of the Project Implementation Manual, with draft TORs, would be conditions of effectiveness of the proposed grant (paras. 26 and 28).

ARGENTINE REPUBLIC

BIODIVERSITY CONSERVATION PROJECT

SCHEDULE A: PROJECT COSTS AND FINANCING

Table A.1. Project Costs by Component and Financing

(US$ Million)

Components	GEF	Govt.	Benefi-ciaries	Total
Protected Areas	**8.3**	**10.4**	**0.4**	**19.1**
(a) Establishment and Consolidation	(6.7)	(9.2)		15.9
(b) Sustainable Development Activities	(0.9)	(0.1)	(0.4)	1.4
(c) Participation and Training	(0.7)	(1.1)		1.8
Biodiversity Information Management	**0.5**	**0.1**		**0.6**
Management, Monitoring & Evaluation	**0.5**	**0.1**		**0.6**
Base Costs	9.3	10.6	0.4	20.3
Contingencies				
(a) Physical	0.3	0.1		0.4
(b) Price	0.5	0.4		0.9
Subtotal	**10.1**	**11.1**	**0.4**	**21.6**
GEF--PDF	0.3			0.3
Total Project Cost	**10.4**	**11.1**	**0.4**	**21.9**

Table A.2. Local and Foreign Project Costs by Component and Financing

	Local	**Foreign**	**Total**
	---------- US$ million ----------		
Protected Areas	**16.7**	**2.4**	**19.1**
Establishment and Consolidation	(13.9)	(2.0)	(15.9)
Buffer-Zone. Activities	(1.2)	(0.2)	(1.4)
Public Participation Activities	(1.6)	(0.2)	(1.8)
Biodiversity Information Management	**0.36**	**0.27**	**0.63**
Management, Monitoring & Evaluation	**0.58**	**0.03**	**0.61**
Total Base Costs	17.64	2.70	20.34
Contingencies:			
Physical	0.30	0.10	0.40
Price	0.75	0.10	0.85
Subtotal Project Costs	18.69	2.90	21.59
GEF--PDF		0.29	0.29
Total Project Costs	**18.69**	**3.19**	**21.88**
Financing Plan			
GEF			10.1
Government			11.1
Beneficiaries			0.4
PDF			0.3
Total			21.9

SCHEDULE B: PROCUREMENT AND DISBURSEMENT ARRANGEMENTS

Table B.1: Summary Of Proposed Procurement Arrangements

(US$ Million) [a/]

Project Element	Procurement				TOTAL
	ICB[b/]	NCB[b/]	Other	N.G.F.[e/]	
1.Civil Works					
1.1 Civil Works		0.5	2.5[c/]		3.0
		(0.4)	(2.3)		(2.7)
1.2 Roads and Trails		0.4	0.4		0.8
		(0.3)	(0.3)		(0.6)
2.Goods					
2.1 Vehicles		0.7			0.7
		(0.6)			(0.6)
2.2 Equipment			0.8[d/]		0.8
			(0.7)		(0.7)
3.Consulting Services [f/]					
3.1 Technical Assistance			1.4		1.4
			(1.4)		(1.4)
3.2 Environmental Studies			0.2		0.2
			(0.2)		(0.2)
3.3 Monitoring and Evaluation[g/]			0.5		0.5
			(0.5)		(0.5)
3.4 Training[g/]			0.6		0.6
			(0.5)		(0.5)
3.5 Project Management			0.5	0.1	0.6
			(0.5)		(0.5)
4.Other Expenditures					
4.1 Operating Costs [h/]			2.0		2.0
			(1.6)		(1.6)
4.2 Buffer-Zone Grants[i/]			0.9	0.4	1.3
			(0.8)		(0.8)
4.3 Land Purchase				6.5	6.5
4.4 Salaries and Related Expenses[j/]				3.2	3.2
Total		1.6	9.8	10.2	21.6
		(1.3)	(8.8)		(10.1)

Figures in parentheses are the amounts to be financed by the Grant.
a/ Totals include taxes and contingencies; b/ ICB-International Competitive Bidding; NCB-National Competitive Bidding; c/ Lump sum, fixed price contracts awarded on the basis of 3 quotations;
d/ Shopping procedures; e/ Not GEF-financed;
f/ According to Consultants Guidelines: Consultant Qual. (approx. US$0.2 m), Individuals (approx. US$2.8 m), and Fixed Budget (approx. US$0.2 m); g/ Includes fees, travel, and other task related costs.
h/ Operating costs= vehicle operating costs, building maintenance, utilities, translation and printing services, and office materials and supplies.
i/ Mostly lump-sum consultant contracts, including fees and associated travel, materials and services.
j/ APN Park Guards and support staff and their direct operating costs.

ARGENTINE REPUBLIC

BIODIVERSITY CONSERVATION PROJECT

Table B.2: Allocation of Grant Proceeds

Category	Allocation (Expressed in US$ Equivalent)	Percent of Expenditures to be Financed by GEF
(1) Establishment of New Protected Areas		
(a) Works	3,158,013	88
(b) Goods	1,115,012	82
(c) Consultant Services	1,329,500	100
(d) Operating Costs	1,371,122	82
(2) Sustainable Development Activities		
(a) Consultant Services	105,000	100
(b) Buffer Zone Grants	742,590	88
(d) Operating Costs	84,870	82
(3) Participation		
(a) Consultant Services	262,500	100
(b) Training Programs	441,000	88
(c) Operating Costs	23,370	82
(4) Biodiversity Information Management		
(a) Goods	101,926	82
(b) Consultant Services	261,150	100
(c) Training Programs	73,480	88
(d) Operating Costs	36,203	82
(5) Project Implementation Unit		
(a) Goods	13,530	82
(b) Consultant Services	460,000	100
(c) Operating Costs	28,823	82
(6) Unallocated	507,840	
Total	10,115,929	

Summary of Disbursement Arrangements

Estimated Schedule of GEF Grant Disbursements:

IBRD FY	1998	1999	2000	2001	2002	2003	2004	2005
				US$ millions				
Annual	0.2	0.5	1.7	1.7	2.8	2.4	0.5	0.3
Cumulative	0.2	0.7	2.4	4.1	6.9	9.3	9.8	10.1

ARGENTINE REPUBLIC

BIODIVERSITY CONSERVATION PROJECT

SCHEDULE C: TIMETABLE OF KEY PROCESSING EVENTS

1. Time Taken to Prepare:	12 months
2. Prepared By:	APN, Bank, FAO/CP
3. PDF Approved	February 1996
4. First Bank Mission:	June 1996
5. GEF Council Approval	March 1997
6. Pre-Appraisal Mission:	April 1997
7. Appraisal Mission:	June/July 1997
8. Date of Negotiations:	July 1997
9. CEO Endorsement of Final Project Document	August 1997
10. Planned Board Date:	October 1997
11. List of Relevant PCRs and PARs	No PCRs or PARs exist for Biodiversity Conservation projects in the LAC region. Lessons learned are derived from Bank studies on sectoral experience and peer reviews with the ESSD network.

Schedule D: Status of Bank Group Operations

Status of Bank Group Operations in Argentina
IBRD Loans and IDA Credits in the Operations Portfolio

Project ID	Loan or Credit No.	Fiscal Year	Borrower	Purpose	Original Amount in US$ Millions IBRD	IDA	Cancellations	Undisbursed	Difference Between expected and actual Disbursements a/
Number of Closed Loans/credits: 53									
Active Loans									
AR-PE-5968	L28540	1987	SEGBA	SEGBA V	276.00	0.00	0.00	67.07	67.07
AR-PE-6009	L32970	1991	GOVT OF ARGENTINA INA	AG SERVCES&INST DEV	33.50	0.00	0.00	3.31	2.11
AR-PE-5977	L32810	1991	ARGENTINE REPUBLIC	WTR SUPPLY II	100.00	0.00	0.00	64.84	60.18
AR-PE-6005	L32800	1991	REPUBLIC OF ARGENTINA	PROVINC DEV PROJ	200.00	0.00	0.00	43.71	43.71
AR-PE-6034	L34600	1992	GOVERNMENT	TAX ADMIN II	20.00	0.00	0.00	2.13	2.13
AR-PE-6003	L36110	1993	GOVT OF ARGENTINA INA	RD MAINT & REHAB SCT	340.00	0.00	0.00	143.04	113.80
AR-PE-6051	L35210	1993	ARGENTINA	FLOOD REHABILITATION	170.00	0.00	0.00	4.28	4.28
AR-PE-6036	L35200	1993	GOVERNMENT	YACYRETA II	300.00	0.00	0.00	3.28	3.28
AR-PE-6062	L37100	1994	MIN OF ECONOMY	CAPITAL MKT TA	8.50	0.00	0.00	5.10	4.36
AR-PE-6025	L36430	1994	GOVT OF ARGENTINA INA	MTNAL CHILD HLTH & N	100.00	0.00	0.00	44.07	23.57
AR-PE-6018	L38770	1995	ARGENTINE REPUBLIC	PROV DEVT II	225.00	0.00	0.00	220.03	23.03
AR-PE-6060	L38600	1995	GOVT OF ARGENTINA	MUNIC DEVT II	210.00	0.00	0.00	197.30	-3.04
AR-PE-5992	L37940	1995	GOVT OF ARGENTINA INA	SECONDARY ED I	190.00	0.00	0.00	167.60	110.70
AR-PE-45687	L40040	1996	REP. OF ARGRNTINA	H.INSURANCE TA	25.00	0.00	0.00	15.04	-.16
AR-PE-40909	L40030	1996	REP. OF ARGENTINA	H. INSURANCE REFORM	100.00	0.00	0.00	100.00	0.00
AR-PE-6057	L39710	1996	GOVT OF ARGENTINA	SECNDARY ED 2	115.50	0.00	0.00	112.50	27.90
AR-PE-38883	L39600	1996	REPUBLIC OF ARGENTINA	ENT.EXPORT DV.	38.50	0.00	0.00	33.04	22.88
AR-PE-37049	L39580	1996	GOVT OF ARGENTINA	PUB.INV.STRENGTHG	16.00	0.00	0.00	15.50	5.90
AR-PE-35495	L39570	1996	SEC.OF SOC.DEVIT (OFFICE	SOCIAL PROTECTION	152.00	0.00	0.00	20.83	10.59
AR-PE-6040	L39480	1996	GOVERNMENT	FORESTRY/DV	16.00	0.00	0.00	15.11	.71
AR-PE-6030	L39310	1996	REPUB OF ARGENTINA	PROVCL HLTH SCTR DEV	101.40	0.00	0.00	95.36	24.36
AR-PE-6055	L39270	1996	GOVT. OF ARGENTINA	MINING SCTR DEVT	30.00	0.00	0.00	17.00	-1.30
AR-PE-40904	L39260	1996	REPUBLIC OF ARGENTINA	BANK REFORM	500.00	0.00	0.00	166.00	166.00
AR-PE-34091	L39210	1996	REP OF ARGENTINA	HIGHER ED REFORM	165.00	0.00	0.00	153.05	66.05
AR-PE-49268	L41950	1997	ARGENTINE REPUBLIC	SOC.PROTECT.2	200.00	0.00	0.00	200.00	16.67
AR-PE-43418	L41680	1997	REPUBLIC OF ARG	AIDS PREV.&STD CTRL	15.00	0.00	0.00	15.00	1.25
AR-PE-6059	L41640	1997	ARGENTINE REPUBLIC	MTL.CHD.HTH.2	100.00	0.00	0.00	100.00	0.00
AR-PE-39584	L41630	1997	GOVT OF ARGENTINA	B.A.URB.TSP	200.00	0.00	0.00	200.00	0.00
AR-PE-6010	L41500	1997	GOA	PROV AG DEVT I	125.00	0.00	0.00	125.00	1.30
AR-PE-46821	L41310	1997	GOVT.OF ARG	PENSION TA	20.00	0.00	0.00	17.50	-.15
AR-PE-6052	L41170	1997	GOVT OF ARGENTINA	FLOOD PROTECTION	200.00	0.00	0.00	200.00	1.34
AR-PE-44445	L41160	1997	REPUBLIC OF ARGENTINA	PROV.PENSION1	300.00	0.00	0.00	75.00	0.00
AR-PE-5980	L40930	1997	GOVT OF ARGENTINA	PROV ROADS	300.00	0.00	0.00	300.00	16.00
AR-PE-40808	L40850	1997	GOA	N.FOREST/PROTC	19.50	0.00	0.00	19.13	-.31
AR-PE-51694	L42220	1998	GOVERNMENT	P.RFM(S.JUAN)	0.00	0.00	0.00	0.00	0.00

Generated by the Operations Information System (OIS) on September 9, 1997

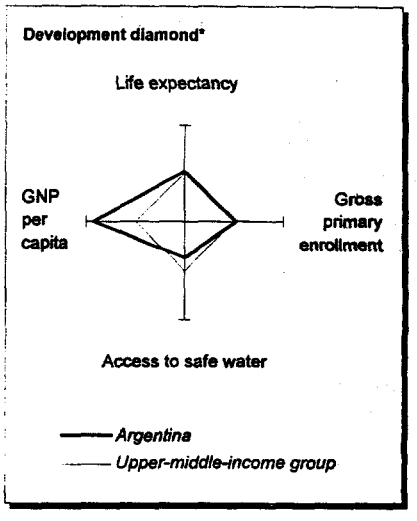
AR-PE-6006	L42210	1998	MIN. OF ECONOMY	P.RFM(TUCUMAN)	100.00	0.00	0.00	100.00	0.00
AR-PE-51693	L42190	1998	GOVERNMENT	P.RFM(SALTA)	75.00	0.00	0.00	75.00	0.00
AR-PE-51695	L42180	1998	GOVERNMENT	P.RFM(R.NEGRO)	75.00	0.00	0.00	75.00	0.00
AR-PE-6041	L42120	1998	GOVERNMENT	SMALL FARMER DV.	75.00	0.00	0.00	75.00	0.00
Total					5,236.90	0.00	0.00	3,285.84	

	Active Loans	Closed Loans	Total
Total Disbursed (IBRD and IDA):	1,951.06	6,721.58	8,672.64
of which has been repaid:	166.55	2,915.76	3,082.31
Total now held by IBRD and IDA:	5,070.35	3,807.46	8,877.81
Amount sold :	0.00	12.79	12.79
Of which repaid :	0.00	12.79	12.79
Total Undisbursed :	3,285.84	1.64	3,287.48

a. *Intended disbursements to date minus actual disbursements to date as projected at appraisal.*
b. Rating of 1-4: see OD 13.05. Annex D2. Preparation of Implementation Summary (Form 590). Following the FY94 Annual Review of Portfolio performance (ARPP), a letter based system will be used (HS = highly Satisfactory, S = satisfactory, U = unsatisfactory, HU = highly unsatisfactory): see proposed Improvements in Project and Portfolio Performance Rating Methodology (SecM94-901), August 23, 1994.
c. *Following the FY94 ARPP, "Implementation Progress" will be reported here.*

SCHEDULE E: ARGENTINA A AT GLANCE

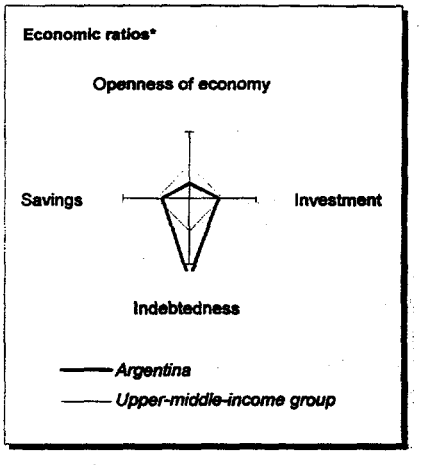
POVERTY and SOCIAL	rgentina	Latin America & Carib.	Upper-middle-income
Population mid-1996 *(millions)*	35.1	485	479
GNP per capita 1996 *(US$)*	8,410	3,710	4,540
GNP 1996 *(billions US$)*	295.0	1,799	2,173
Average annual growth, 1990-96			
Population *(%)*	1.3	1.7	1.5
Labor force *(%)*	2.0	2.3	1.8
Most recent estimate *(latest year available since 1989)*			
Poverty: headcount index *(% of population)*	26	..	..
Urban population *(% of total population)*	88	74	73
Life expectancy at birth *(years)*	73	69	69
Infant mortality *(per 1,000 live births)*	22	37	35
Child malnutrition *(% of children under 5)*	..	..	..
Access to safe water *(% of population)*	64	80	86
Illiteracy *(% of population age 15+)*	4	13	13
Gross primary enrollment *(% of school-age population)*	111	110	107
Male	..	..	..
Female	..	..	..



KEY ECONOMIC RATIOS and LONG-TERM TRENDS

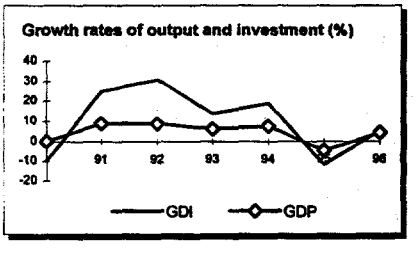
	1975	1985	1995	1996
GDP *(billions US$)*	52.4	88.4	280.8	300.5
Gross domestic investment/GDP	29.4	17.6	18.3	18.5
Exports of goods and services/GDP	5.8	11.7	8.5	9.0
Gross domestic savings/GDP	29.3	23.1	18.4	18.1
Gross national savings/GDP	28.4	16.6	17.5	17.2
Current account balance/GDP	-2.5	-1.1	-0.9	-1.3
Interest payments/GDP	0.9	5.0	2.1	2.3
Total debt/GDP	14.7	57.6	32.0	33.2
Total debt service/exports	44.7	60.1	47.4	46.7
Present value of debt/GDP	..	..	29.5	..
Present value of debt/exports	..	..	332.1	..

	1975-85	1986-96	1995	1996	1997-05
(average annual growth)					
GDP	0.6	2.9	-4.6	4.4	5.0
GNP per capita	-1.8	2.0	-6.4	2.8	3.9
Exports of goods and services	5.1	7.6	26.4	7.4	8.0

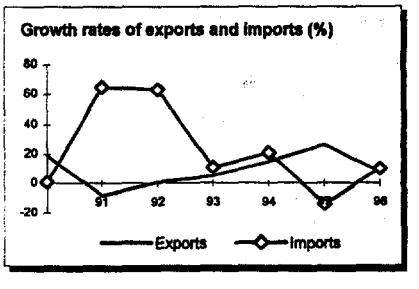


STRUCTURE of the ECONOMY

	1975	1985	1995	1996
(% of GDP)				
Agriculture	6.6	7.6	7.4	7.1
Industry	50.1	39.3	36.0	36.2
Manufacturing	38.2	29.7	..	..
Services	43.3	53.1	56.6	56.7
Private consumption	58.1	..	72.3	73.3
General government consumption	12.6	..	9.4	8.5
Imports of goods and services	6.0	6.3	8.5	9.3



	1975-85	1986-96	1995	1996
(average annual growth)				
Agriculture	1.6	1.5	2.3	0.3
Industry	-1.5	2.7	-8.5	4.9
Manufacturing	-1.6	0.9	..	..
Services	2.2	3.3	-3.0	4.6
Private consumption	..	..	-8.6	5.7
General government consumption	..	..	-6.6	-5.4
Gross domestic investment	-3.5	5.7	-11.9	5.4
Imports of goods and services	2.4	14.5	-14.0	10.0
Gross national product	-0.3	3.4	-5.1	4.0

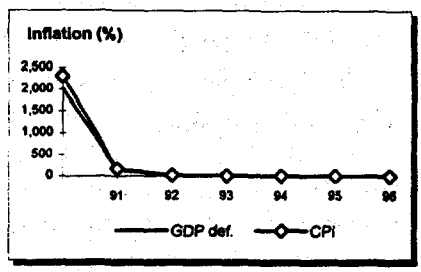


Note: 1996 data are preliminary estimates. Figures in italics are for years other than those specified.

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

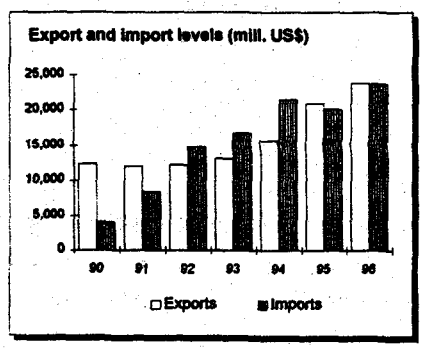
PRICES and GOVERNMENT FINANCE

	1975	1985	1995	1996
Domestic prices				
(% change)				
Consumer prices	182.6	672.3	3.4	0.1
Implicit GDP deflator	198.2	618.2	4.5	2.5
Government finance				
(% of GDP)				
Current revenue	..	..	16.7	16.5
Current budget balance	..	..	-0.2	-1.1
Overall surplus/deficit	..	..	-1.1	-2.4



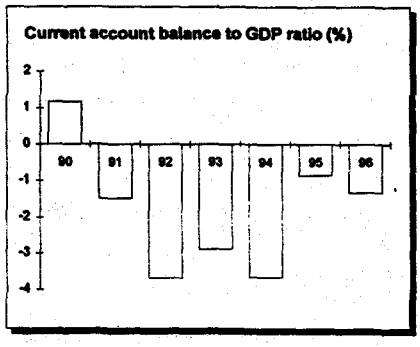
TRADE

	1975	1985	1995	1996
(millions US$)				
Total exports (fob)	2,961	8,396	20,964	23,774
Food	..	..	1,969	2,203
Meat	..	..	1,582	1,955
Manufactures	..	..	10,836	12,004
Total imports (cif)	3,947	3,814	20,120	23,733
Food	..	..	..	..
Fuel and energy	..	..	809	846
Capital goods	..	..	4,746	5,647
Export price index *(1987=100)*	..	..	118	124
Import price index *(1987=100)*	..	..	115	120
Terms of trade *(1987=100)*	..	..	102	103



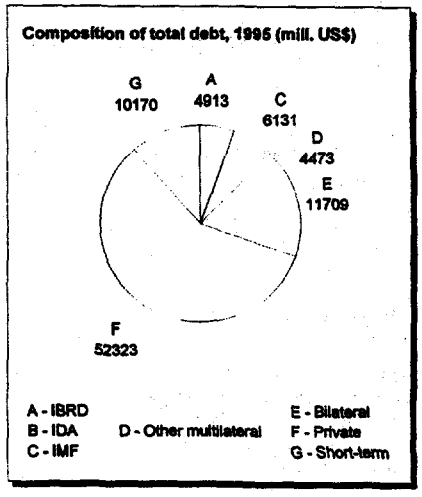
BALANCE of PAYMENTS

	1975	1985	1995	1996
(millions US$)				
Exports of goods and services	3,498	10,039	23,889	27,076
Imports of goods and services	4,324	5,285	23,826	27,900
Resource balance	-826	4,754	63	-824
Net income	-466	-5,706	-2,941	-3,523
Net current transfers	6	0	432	334
Current account balance, before official capital transfers	-1,286	-952	-2,446	-4,013
Financing items (net)	208	2,200	2,515	231
Changes in net reserves	1,078	-1,248	-69	3,782
Memo:				
Reserves including gold *(mill. US$)*	848	4,703	15,992	19,774
Conversion rate *(local/US$)*	3.7E-10	6.0E-05	1.0	1.0



EXTERNAL DEBT and RESOURCE FLOWS

	1975	1985	1995	1996
(millions US$)				
Total debt outstanding and disbursed	7,723	50,946	89,719	99,701
IBRD	341	700	4,913	5,372
IDA	0	0	0	0
Total debt service	1,603	6,209	9,732	14,529
IBRD	43	114	565	608
IDA	0	0	0	0
Composition of net resource flows				
Official grants	0	6	36	..
Official creditors	59	217	1,411	..
Private creditors	-111	2,350	5,674	..
Foreign direct investment	0	919	1,319	..
Portfolio equity	0	0	211	..
World Bank program				
Commitments	0	0	2,272	946
Disbursements	19	144	941	1,077
Principal repayments	17	68	259	282
Net flows	1	75	682	795
Interest payments	26	46	306	326
Net transfers	-25	30	376	469



PART II: TECHNICAL ANNEXES

ANNEX A: BIODIVERSITY ASSESSMENT

Prioritization of Sites from a Global Biodiversity Perspective

A. Background

1. The Global Environment Facility's (GEF) mandate is to finance the incremental costs of protecting biodiversity of global importance. This implied the need to prioritize and rank different types of ecoregions or sites, and perhaps different types of biodiversity, as to their global importance. Establishing these priorities required a ranking of the relative importance of biological criteria such as richness, rarity, threat, distinctiveness, representativeness, and function. This biological criteria was then balanced against social and economic criteria, taking into account the range of conservation actions realistically available to the user of the rankings as well as a number of investment feasibility criteria.

2. The project preparation team took Annex 1 to the Convention on Biological Diversity (CBD) as its starting point in the prioritization exercise. However, in practice, it was found that the biodiversity criteria listed in Annex 1 were not sufficiently detailed to provide definitive guidance on the setting of priorities for biodiversity. Consequently, a methodology was developed, based on the CBD framework, to reach a final decision on site selection.

B. Approach Used in this Project

3. Several *Administración de Parques Nacionales* (APN) studies have addressed the question of national biodiversity priorities and, to varying degrees, these have also addressed global priorities (Burkhart et. al., 1994; APN, 1994; Burkhart, 1995; Gómez et. al., 1996). A recent report published by the World Bank and the World Wildlife Fund (WWF) analyzed the question of global biodiversity priorities in all of Latin America (Dinerstein et al., 1995). Moreover, carried out in close collaboration with APN and with other Argentine biodiversity experts, a study on prioritizing sites for this project, from a global and national viewpoint, was carried out as part of preparation activities (Bucher, 1996).

4. Taking into account the general guidance of the GEF, the studies cited above, and the fact that the Argentina Biodiversity Conservation Project (ABCP) is essentially a protected areas initiative, an approach was developed emphasizing degrees of protection and of threat for prioritizing ecoregions at a global level. Once the high-priority ecoregions were identified, national biodiversity priorities and investment feasibility criteria provided much of the basis for the identification of specific sites (Figure A-1). This approach is believed to be consistent with the GEF Operational Strategy, and reflects

national opinion on the relative importance of different criteria. Specifically, it consisted of three phases:

(a) Phase I: The 18 ecoregions of Argentina were prioritized as to their global importance;

(b) Phase II: After selecting a more manageable subset of nine ecoregions, a list of sites that could benefit from potential protection under the project were identified from each ecoregion. Biological criteria, at both a global and national level, were used to select sites of outstanding site-specific biological characteristics; and

(c) Phase III: Finally, the list of candidate sites was passed through a set of filters designed to take into account investment and implementation feasibility and potential for sustainability.

C. **Phase I Methodology and Results**

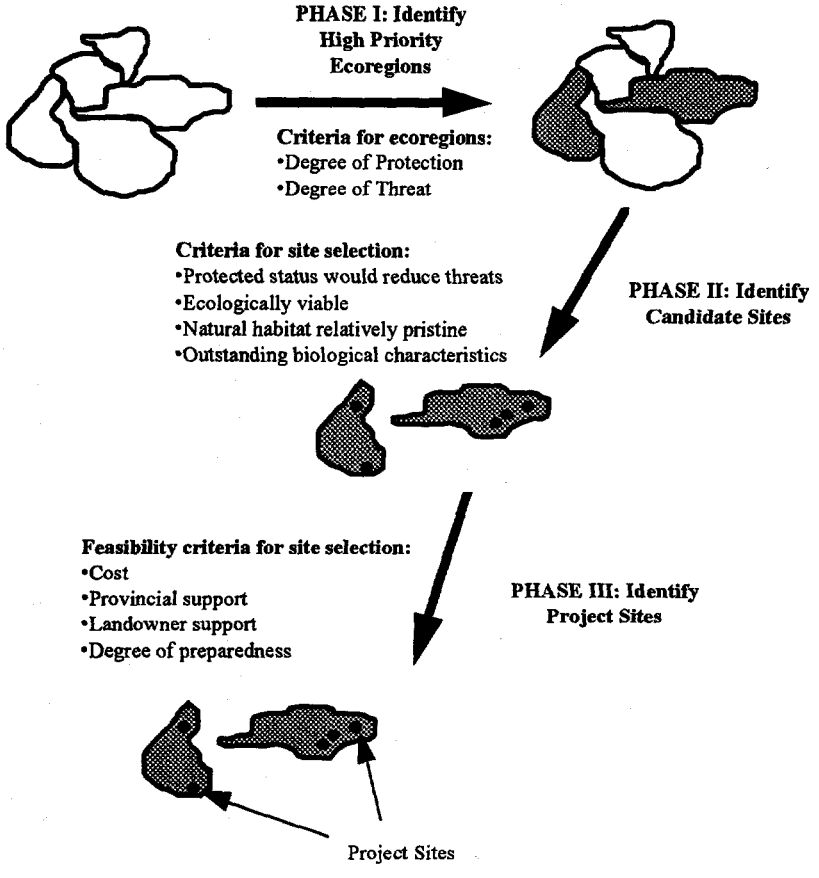
Choice of Ecoregion Classification

5. While various ecoregion level maps are available for Argentina, the classification of a recent World Bank/WWF report (Dinerstein et al., 1995) was used in this selection process because of its complete set of data from a regional perspective. This classification of ecoregions is roughly consistent with most other Argentine classification systems. For the purposes of this exercise, a distinction was made between the southern half of the Chaco Savannas (essentially the Argentine Semi-arid Chaco) and the Chaco Savannas of Paraguay and Bolivia. This division better represents the conservation status of the Argentine Semi-arid Chaco as the northern Chaco Savannas are much better protected (in Bolivia at least) and under relatively less threat.

6. A few ecoregions, as defined for Argentina in Dinerstein et al. (1995), were not considered in this exercise. These were:

- the Brazilian *Auracaria* Forests because it is almost entirely restricted to Brazil and barely occurs in Argentina (the extent in Argentina is actually much less than shown in Dinerstein et al. (1995)).
- the Uruguayan Savannas because it is almost entirely restricted to Uruguay and Brazil.
- the Patagonian Grasslands because, in deference to the views of most Argentine biogeographers (e.g., Bucher, 1996; APN maps), this ecoregion is not separable from the Patagonian Steppe.

Figure A-1. Methodological Approach for Prioritizing Sites



7. Finally, an additional ecoregion, not included in Dinerstein et al. (1995) because it is a non-terrestrial unit, was also included in this analysis. Although divided and named in various ways by Argentine biogeographers, this additional region is referred to here as the Littoral/Marine ecoregion. It consists of the littoral (shoreline) habitats of the entire coast of Argentina, including associated coastal wetlands and offshore marine habitats. The 16 ecoregions (see Map 1) used as a starting point in this exercise were (names in parentheses are the most commonly used equivalents in Argentina):

- Andean Yungas (*Yungas*)
- Brazilian Interior Atlantic Forests (*Selva Paranaense*)
- Valdivian Forests (*Subantártica*)
- Subpolar *Nothofagus* Forests (*Subantártica*)
- Semi-arid Chaco (*Chaco Occidental*)
- Humid Chaco (*Chaco Oriental*)
- Córdoba Montane Savannas (*Chaco Serrano*)
- Argentine Monte (*Monte*)
- Argentina Espinal (*Espinal*)
- Pampas (*Pampa*)

- Paraná Flooded Savannas (*Delta y Islas del Paraná*)
- Central Andean Puna (*Puna y Altoandino*)
- Central Andean Dry Puna (*Puna y Altoandino*)
- Southern Andean Steppe (*Estepa Patagónica*)
- Patagonian Steppe (*Estepa Patagónica*)
- Litoral/Marine (*Oceánica Uruguayo-Bonaerense/Oceánica Patagónica*)

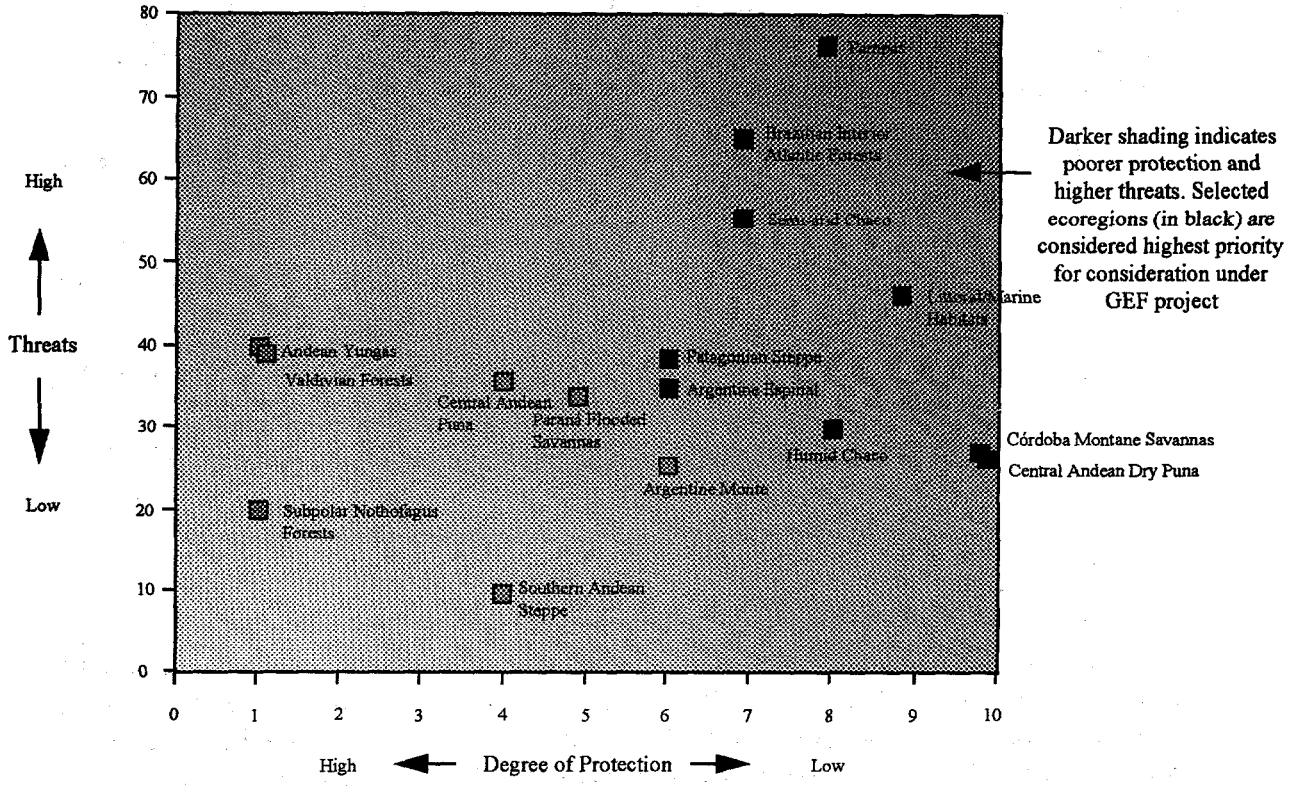
Methodology for Prioritizing Ecoregions and Results

8. In the context of the ABCP, it was considered appropriate to accord considerable importance to the degree of protection as well as to the degree of threat associated with each ecoregion (in both cases, the ecoregions were evaluated over their entire area and not just in their Argentine portion). This approach is less complex than that of Dinerstein et al. (1995), yet the final results are similar.[1] Figure A-2 presents the protection and threat values of these two parameters for the 16 Argentine ecoregions.

9. The degree of protection values were taken directly from Dinerstein, et al. (1995); see that source for full details of how the values were determined. The "degree of threat" values are the sum of all the values used in that book to determine the Snapshot Conservation Status, minus the Degree of Protection Value (i.e., threat is measured by taking into consideration habitat loss, presence of habitat blocks, fragmentation and degradation, and degree of conversion). All values were taken unchanged from Dinerstein et al. (1995), as they were in substantive agreement with the opinion of Argentine experts. The values for the Paraná Flooded Savannas and the Littoral/Marine ecoregion were estimated by APN experts, since no data for this ecoregion were included in Dinerstein et al. (1995). Similarly, the values for the Semi-arid Chaco of Argentina were estimated by APN experts and by Bucher (1996) since, as defined here, this ecoregion is substantially different from the original Chaco Savannas.

[1] Regional Conservation Priority values, from Class I (highest priority) to Class IV (lowest priority), were calculated in the report of Dinerstein et al. (1995) for all of the ecoregions in Argentina. Nine of the 18 ecoregions were classed as Priority I; four of the proposed sites under this project fall in a Class I ecoregion. Quebrada del Condorito is an area that falls within the Class IV Córdoba Montane Savannas ecoregion, but it should be noted that the Condorito site also harbors a biologically unique mix of ecotones with higher priority ecoregion types such as the Yungas, the Pampas, and the Semi-arid Chaco.

Figure A.2. Prioritization of Argentine Ecoregions from a Global Perspective



10. The darker shading on Figure A-2 indicates a relatively poorer degree of protection and a higher level of threat. The selected higher priority ecoregions (the black squares) are those that fall in the darker areas of the graph. From a global point of view, the nine ecoregions selected using these criteria represent the most important candidates for consideration under this project. These were:

- Pampas
- Brazilian Interior Atlantic Forests
- Semi-arid Chaco
- Patagonian Steppe
- Argentine Espinal
- Humid Chaco
- Córdoba Montane Savannas
- Littoral/Marine Habitats
- Central Andean Dry Puna

D. Phase II Methodology and Results

11. The objective of Phase II of this analysis was to identify biologically interesting candidate sites from each of the high priority ecoregions identified in Phase I. Additionally, several freshwater wetland sites were included in the list of candidate sites since the ecoregion approach excluded such areas. Criteria used to identify the list of candidate sites were the following:

(a) area of relatively pristine natural habitat, representative of the ecoregion in which it is located;

(b) area of sufficient size to be considered ecologically viable and large enough to ensure conservation of ecological processes over the long term;

(c) in the event that many potential sites were identified in an ecoregion, higher consideration was given to those that were biologically most interesting (relatively high species diversity, local center of endemism, or some other outstanding biological characteristics); and

(d) area under such imminent threat that protection would help ensure the long-term ecological viability of the site.

12. The list of sites was identified by APN experts, through a series of workshops and meetings in Buenos Aires and elsewhere (Bucher, 1996). The potential wetland sites were those identified by the Argentine office of the NGO Wetlands for the Americas using criteria developed for the Ramsar Convention (Frazier, 1996). Thirty-two sites were identified as a result of this exercise. Only cursory information is provided here on most sites (Table A-1); complete descriptions for these sites can be found in Bucher (1996), a copy of which is available in Project Files (Annex J).

E. Phase III Methodology and Results

13. During the final phase of the prioritization exercise, the 32 candidate sites were subjected to a series of filters to determine the interest of including them in the proposed GEF project. It should be noted that at this point in the exercise, all sites were considered to be of global biodiversity interest because they are located in the Argentine ecoregions of the highest global interest (Phase I) and they are among the biologically most interesting sites in their respective ecoregions (Phase II).

14. During the Phase III prioritization of sites, criteria related to feasibility of the investment were used in selecting a short list of project sites. Rather than a prioritization ranking, the final selection was obtained by eliminating sites that did not meet minimal feasibility criteria. Failure to satisfy any one of these thresholds meant that, at least within the context of this particular GEF project, preparing a major protected area investment in the area was not realistic. Table A-1 shows rejected sites and the corresponding minimal criteria they failed to meet (indicated by an X in that column). The criteria used were the following:

(a) Cost: The GEF investment cannot include land purchase costs. Since only limited funds are available to APN for land purchase, this criterion led to the rejection of sites with unreasonably high land purchase costs;

(b) State of negotiations with the province: The protected area system in Argentina is a complex mix of federal and provincial protected areas of varying status. Generally, the creation of a new protected area in Argentina is dependent on the support of the provincial government concerned. This may involve legislative support for passing a law to cede the land in question to the federal government or support for effective management in areas under its own management. APN ranked the state of negotiations with the concerned provinces in order to judge whether provincial support was likely to be sufficient, through the life of the project and thereafter, to attain key conservation objectives. Wetland sites in Tierra del Fuego (Costa Atlántica de Tierra del Fuego) and Córdoba (Mar Chiquita), proposed for support in an early 1995 proposal to the GEF, were eliminated for lack of provincial interest;

(c) Local support: Some measure of support from local landowners and communities was deemed essential. In the absence of such support, expropriation procedures, where needed, could result in additional costs and involuntary resettlement disputes. In some cases, the lack of local community support could compromise the long-term sustainability of a proposed protected area; and

(d) Degree of preparedness: This five-year GEF project is expected to begin disbursements in early 1998, hence there is a relatively small window of time available for preparing and implementing investments. With this time constraint in mind, a minimal preparedness criterion was established whereby some sites were eliminated because they faced lengthy administrative and legal steps for preparing an investment.

15. After applying these selection criteria (Table A-1), five sites were selected for investments under the GEF Project. Those five selected sites are: (a) *Área Protegido Los Venados* (San Luis), (b) *Área Protegido San Guillermo* (San Juan), (c) *Área Protegido Copo* (Santiago del Estero), (d) *Área Protegido Quebrada del Condorito* (Córdoba), and (e) *Área Protegido Monte León* (Santa Cruz). These selected areas are described in greater detail in Annex B and in Bucher (1996).

16. A few highly-rated sites were narrowly excluded only because of an insufficient degree of preparedness. Two sites that were just barely excluded from inclusion in the project were: (a) Puerto Península, Missiones, in the Brazilian Interior Atlantic Forests ecoregion (*Selva Paranaense*); and (b) Los Cardones, Salta, in the Central Andean Dry Puna (*Prepuna*). These sites could be considered for a Phase II project, based of course on a positive implementation experience with the project and satisfactory evaluation by the independent experts.

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Table A.1. Principal Characteristics and Feasibility Analysis of Candidate Sites Identified During Phase II

Site Name	Size[a] (ha)	Biological Characteristics	Feasibility Criteria[a]			
			Cost	Negot. with Prov.	Local Support	Prepar-edness
PAMPAS *(PAMPA)*						
1. **Los Venados (Pastizal Pampeano), San Luis**	130,000	Large area of relatively pristine dry Pampas; populations of the endangered Pampas Deer sub-species *(Ozotoceros bezoarticus celer)*				
2. Río Salado area, Buenos Aires	N/A	One of most pristine remaining areas of humid pampa habitat; seasonally flooded	X	X		
3. Sierra de la Ventana, Buenos Aires	N/A	Small area relatively protected in Prov. Reserve Ernesto Torniquis; area of upland pampa habitat; relict populations of guanaco		X		
BRAZILIAN INTERIOR ATLANTIC FORESTS *(SELVA PARANAENSE)*						
4. Puerto Península, Misiones (expansion of Iguazú National Park)	17,600	Property of the Army; protection would extend and constitute a buffer to the adjacent Iguazú National Park				X
5. Yabotí, Misiones	240,000	Largest relatively contiguous area of this ecoregion type in Argentina; privately owned and currently a biosphere reserve but not adequately protected	X			X
SEMI-ARID CHACO *(CHACO OCCIDENTAL)*						
6. Copo, Santiago del Estero	115,000	One of the largest areas of pristine Chaco in Argentina; complete range of representative communities; good populations of vulnerable large mammals such as jaguars, giant armadillo, etc.				
7. Reserva Natural Formosa (expansion), Formosa	38,000	Extension to existing reserve of 10,000 ha (only existing national park in Semi-arid Chaco) would guarantee viability of original reserve		X		
8. El Rey (expansion), Salta/Jujuy	240,000	Extension to existing park would incorporate many Yungas/Chaco ecotones and establish a corridor with the now isolated Calilegua National Park				X
9. La Pirámide, Chaco	N/A	Excellent state of conservation of Chaco-type quebrachal forests; rich fauna and flora		X		
10. Salto Forestal property near Joaquin González, Salta	380,000	Previously sustainably managed for wood production; area largely still well conserved; typical Chaco habitats	X			X

Site Name	Size[a] (ha)	Biological Characteristics	Feasibility Criteria[a]			
			Cost	Negot. with Prov.	Local Support	Prepar-edness
PATAGONIAN STEPPE *(ESTEPA PATAGÓNICA)*						
11. Bosques Petrificados (expansion), Santa Cruz	50,000	Extension to a Natural Monument; good sample of Patagonian Steppe habitat; outstanding fossil beds	X			X
ARGENTINE ESPINAL *(ESPINAL)*						
12. Luro, La Pampa	N/A	Relatively protected as provincial park; good representative of Caldenes sub-ecoregion type; mosaic with Monte habitats		X		X
13. Montiel region, Entre-Rios	N/A	Good state of conservation despite extensive cattle raising; representative Espinal habitats and communities	X			
14. Loma (and Laguna) del Cristal, Santa Fé	N/A	Combination of wetlands, woodlands and grasslands; relatively little affected by present cattle raising activities	X			
15. Lihué Calel (expansion), La Pampa	12,500	Good representative of espinal habitat; distinctive brackish wetlands *(salitrales)*	X			X
HUMID CHACO *(CHACO ORIENTAL)*						
16. Laguna El Palmar	5,500	Mix of upland chaco habitat with seasonally flooded wetlands; only marginally affected by cattle raising; very rich in fauna	X			X
17. Rio Vermejo area *(Mesopotamia Chaqueña)*, Chaco	200,000	Mix of Humid Chaco, Semi-Arid Chaco, wetlands, and gallery forest habitats; borders a well protected indigenous reserve	X			X
18. Parque Nacional Chaco (expansion), Chaco		Privately owned mix of well preserved forests, wetlands, and natural grasslands	X		X	
CÓRDOBA MONTANE SAVANNAS *(CHACO SERRANO)*						
19. Quebrada del Condorito, Córdoba	181,000	Only serious candidate to become the first protected area in the Córdoba Montane Savannas; unique extra-Andean population of Andean Condor; some endemics in this isolated massif				
20. Talampaya Prov. Reserve, La Rioja	215,000	Part of this area is biogeographically linked to this ecoregion; also includes monte and pre-puna habitats	X			X

Site Name	Size[a] (ha)	Biological Characteristics	Feasibility Criteria[a]			
			Cost	Negot. with Prov.	Local Support	Prepar-edness
CENTRAL ANDEAN DRY PUNA *(PUNA/ALTOANDINO)*						
21. Laguna de los Pozuelos, Jujuy	100,000	Biosphere Reserve and Ramsar site; puna habitat surrounding wetland very important for migratory birds (such as three species of flamingos)		X	X	
22. San Guillermo, San Juan	860,000	Most southerly extension of Puna in Argentina; large populations of camelids (vicuñas and guanacos)				
23. Laguna Vilama, Jujuy	8,000	Similar to nearby Pozuelos site in biological characteristics; good populations of vicuña, rheas, etc.; in addition to puna habitats, includes an important wetland that seasonally is used by tens of thousands of flamingos		X	X	
24. Los Cardones, Salta	65,000	Good mixture of puna habitats, including stands of giant cacti *(cardones)*, *Trichocereus pasacana*	X			X
FRESHWATER WETLANDS *(HUMEDALES)*						
25. Mar Chiquita, Córdoba	200,000	Brackish wetland internationally important for migratory birds; surrounding espinal and dry chaco habitats; threatened by contamination and canal construction	X	X		X
26. Laguna Llancanelo, Mendoza	40,000	Ramsar site; good representation of monte and steppe habitats		X		
27. Iberá (provincial reserve), Corrientes	1,200,000	Wetland complex of wetland and chaco habitats; very rich in fauna: alligators, Pantanal deer, various felines, etc.	X		X	
LITTORAL/MARINE HABITATS (*OCEÁNICA URUGUAYO-BONAERENSE & OCEÁNICA PATAGÓNICA)*						
28. Bahía Policarpo, Tierra del Fuego	25,000	Well preserved littoral and steppe habitats, areas of subantarctic *Nothofagus* forests, and important wetlands		X		X
29. Monte León, Santa Cruz	11,000	Well conserved Patagonian Steppe habitat and also outstanding littoral and marine habitats would be protected at this site; regionally important colonies of penguins and sea lions				
30. Albufera Mar Chiquita, Buenos Aires	30,000	Ecologically interesting coastal lagoon; important for migratory birds		X		X
31. Costa Atlántica de Tierra del Fuego, Tierra del Fuego	About 200 km of coastline	Hemispheric site of the Western Hemisphere Shorebird Reserve Network; coastal wetlands of outstanding importance		X		
32. Punta Rasa, Buenos Aires	615	Important for migratory shorebirds		X		X

a. An "X" in a feasibility column indicates that the site was judged to not satisfy the minimal feasibility criterion (see text for more details). Under Size, "N/A" is indicated for the site when a general area or region or interest has been identified rather than a clearly definable site.

ANNEX B: PROTECTED AREAS AND ASSOCIATED SUPPORT COMPONENT

(US$ 19.1 million Base Costs[2])

A. Rationale and Objective

1. Argentina's early management of its PAs could be characterized as "traditional" in that emphasis was placed on direct protection by APN staff, with little if any public participation. As evidence grew that this approach was no longer effective in addressing threats undermining the integrity of PAs, APN initiated a new approach beginning in 1985 with the creation of Local Assessment Commissions (*comisiones asesoras locales*) with the objective of increasing local public and private participation in the PA management process. More recently, public participation and transparency in the management process has been increasingly integrated into the development of management and visitor plans and environmental impact assessments. The Argentina Biodiversity Conservation Project (ABCP) provides an opportunity to reinforce these earlier efforts and contribute to the development of new participatory approaches to help ensure long-term conservation of protected areas. As such, the project will support: (i) the creation of five national parks to protect unique ecosystems, and the biodiversity they contain; (ii) the promotion of sustainable development activities in the provincial reserves and areas of influence around the PA core zones; and (iii) the incorporation of stakeholders from the private and non-governmental sectors in planning and decision-making activities, especially at the local level.

B. Component Description

2. The Protected Areas Component consists of three sub-components, namely: (i) creation and consolidation of new protected areas, (ii) sustainable development activities in the PAs' buffer zones, and (iii) public participation.

Sub-component 1: Creation and Consolidation of Protected Areas

3. The ABCP will create five national protected areas in Argentina (See Map 1 for their location). These are: (a) *Área Protegido Los Venados* (APLV); (b) the *Área Protegido San Guillermo* (APSG); (c) the *Área Protegido Copo* (APC); (d) *Área Protegido Quebrada del Condorito* (APQC); and (e) *Área Protegido Monte León (APML).* Each of these sites represents an area of high biological and ecological value of global significance. All are threatened by one or more potential resource-use conflicts, and all represent high priority conservation sites at both the national (APN) and provincial levels (see Annex A for more detail on site selection). In the following discussion, the use

[2] Base Costs are costs without price or physical contingencies.

of the term protected area (PA) as applied to these five sites implies an integrated conservation unit consisting of a national park (core zone) and its associated buffer area consisting of a national and/or provincial reserve.

4. *Área Protegido Los Venados* (APLV). According to APN's own studies, the pampas grasslands are the nation's most threatened biome because of conversion for agricultural and grazing uses. The APN estimates that of the country's original 500,000 square kilometers of pampas, less than 0.2 percent remains in pristine condition, mostly in isolated patches. Because this area is virtually absent from the current national system of protected areas, APN has made it the agency's highest priority for project support.

5. The pampas grasslands ecosystem is also important as habitat for one of Argentina's most endangered species, the pampas deer (*Ozotocerus bezoarticus*), the protection of which is a global priority. The proposed protected area is home to the most important of the three remnant populations of the pampas sub-species of the deer, the others being in the provinces of Buenos Aires and Corrientes. Until recently, the San Luis Province population exists only because of the efforts of private, local land managers to restrict access to their property and to control poaching. However, there is now a new provincial law in place which provides additional protection to the deer. The major threats to the remaining examples of this once vast ecoregion are:

(a) Changing land use patterns. Economic pressures are contributing to changes in ownership and land use patterns in the pampas grasslands. Areas that were formerly characterized by large land holdings that sustained traditional grazing pressures are rapidly being transformed into smaller ownership units characterized by increasing grazing pressure and conversion to agricultural uses; both contributing to the contraction of the ecoregion and loss of critical habitat of the pampas deer population;

(b) Introduction of exotic grasses. To support more intensive grazing, many owners have introduced exotic grasses, some species of which provide good forage for cattle but out-compete the native species. These exotic grasses do not favor the continued existence of the pampas deer nor the thousands of other distinctive and endemic species of plant and animals characteristic of these habitats; and

(c) Poaching of the pampas deer. While hunting is outlawed in San Luis Province, the lack of enforcement has permitted considerable pressure on this endangered species.

6. This proposed PA is located in San Luis Province and represents one of the few areas of natural grasslands remaining in the country. The APLV will consist of a core national park area of approximately 30,000 ha, one of the only remaining pristine grassland areas in the pampas. The park will be surrounded by national and provincial reserves measuring approximately 30,000 and 70,000 ha respectively, plus an additional 45,000 ha in the form of an existing private reserve managed by a national NGO

(*Fundación de Vida Silvestre*— FVSA). At present, this area is entirely privately owned. Existing control measures consist of infrequent visits from the provincial flora and fauna inspectors, while INTA technicians provide technical advice to the local agricultural community. However, a recent agreement has been signed between the President of the Nation and the Governor of San Luis Province which outlines the necessary steps leading to the creation of new protected area.

7. The proposed management activities to be supported in the APLV will differ according to category of protection. These are:

(a) National park. The management strategy will be based on a policy of strict protection, but will make provision for the possibility of low-impact visits. Following the completion of land acquisition, cattle would be gradually eliminated from the park. Park rangers would be hired and would patrol the area to control access, poaching and other types of illegal activity, and manage visitor use. These rangers would conduct basic inventory and monitoring activities, paying special attention to the condition of the pristine grasslands and the number and distribution of the pampas deer. The project would develop partnerships with the local scientific community to monitor the effects of park management on the pampas deer and to monitor the incidence of grassland fire in the core area; and a

(b) National and provincial reserve. The reserve would be managed as a buffer zone for the core area, with management objectives emphasizing the control of productive activities through implementation of restrictions on use established through mutual agreement between APN and provincial authorities. Permitted activities would include visitor use such as picnicking and camping. Grazing would continue in the reserve, but would be managed under APN guidelines, which would be developed in cooperation with INTA and others in the scientific community. Other likely activities to be supported in the reserve would include: (i) the provision of technical assistance aimed at reducing fertilizer and pesticide use, (ii) the promotion of micro-enterprises to serve visitor needs, and (iii) efforts to enhance environmental consciousness. APN and the province will establish cooperative mechanisms to ensure that local residents understand the importance of eliminating activities detrimental to conservation objectives.

8. Of the total 175,000 ha representing the proposed PA, only the approximately 30,000 ha designated as the national park would be purchased by APN. Currently, there are two families living within the park's boundaries. Under the project, APN will allow these families to remain and will begin to assist them at the time the land changes hands. This assistance is detailed in the Mitigation Plan (MP) in Annex E. The remaining land outside the core area would remain under private ownership, subject to restrictions established by APN and relevant provincial institutions.

9. *Área Protegido San Guillermo* (APSG). The proposed *Área Protegido San Guillermo* (APSG), located in San Juan Province, was originally established as a provincial reserve in 1972. Because of its large population of vicuña *(Vicugna vicugna),* an endangered species, and guanacos *(Lama guanicoe)*, a threatened species, UNESCO declared this a biosphere reserve in 1984. The most important ecosystem of the APSG is the Andean puna, which reaches its southernmost extension in the proposed PA. The Argentine section of the puna is characterized by sparse rainfall, relatively low temperatures, extreme daily temperature change (more than 30 degrees Celsius in some cases), and high winds. The reserve contains high mountain valleys and deep canyons, with permanent snow fields in its northernmost extension of the interior mountain ranges. Recently, important archaeological sites, including traces of pre-Spanish Inca, were discovered in the proposed area.

10. The APN considers the Andean puna to be under-represented in the national park system, and a recent study characterized the APSG as both nationally and regionally significant due to the high degree of biodiversity and endemic species associated with the southernmost extension of the puna. The San Guillermo site is thought to contain up to 50 percent of the remaining Argentine population of vicuñas, and it is only one of two places in Argentina where vicuña and guanaco inhabit the same range. A recent study concluded that San Guillermo, because of the difficulty of access and the protection that it has been afforded due to its status as a provincial and biosphere reserve, is perhaps the least altered example of the puna in the Andean region. The most significant threats to the proposed PA are:

(a) Poaching of vicuña and guanaco. Illegal hunting is widespread in the proposed area. Poachers enter on horseback and easily escape detection because of the vast distances and the lack of effective protection; and

(b) Potential mining conflicts. There is some gold mining exploration in the area; an activity allowed under claims filed by these entities with the provincial *Sub-Secretaría de Minería.* While the proposed national park appears to have little mining potential and is encumbered with only a few claims and prospecting activity, rights which will shortly expire, the buffer and multiple use zones do have claims. Among other institutional safeguards, the recently approved national mining law (*Ley Nacional No.* 24.585/95) requires the preparation of an environmental impact study, which must be accompanied by appropriate mitigation measures.

11. The proposed PA of some 834,000 ha will consist of a national park of approximately 170,000 ha, a provincial reserve of 294,000 ha, and a multiple use zone of 370,000 ha on the northern, western, and southern sides of the park. The proposed area which has been proposed as a national park has already been ceded to the Nation (*Ley Provincial No. 6.788/97).* The degree of protection of the existing reserve has varied over time, depending on the availability of provincial resources to support patrol and control activities. At present, protection appears to be almost non-existent.

12. Management activities supported under the project will be compatible with the following designated zone management categories. These are:

(a) National park. Emphasis will be placed on the protection of the natural and cultural resources within the 170,000-ha core area. These would include strict control of major access points, roving patrols within the core area, prohibition of agricultural, grazing, and mining activities, control of poaching, basic inventory and monitoring activities, management of visitor use, and launching of necessary planning activities with the participation of appropriate interest groups. Mining activities would also be strictly prohibited in this area. The core zone could serve as a baseline to monitor impacts of human activities in the two designated reserves;

(b) Buffer zone. The province will manage the 294,000-ha provincial reserve primarily as a buffer to provide additional protection to the proposed national park. The current agreement between the Governor and the President of the Nation commits the province to limit development activities in this zone to those which would represent no threat to the core zone. The law ceding the jurisdiction of the land for the national park also stipulates that mining processing would not be allowed. In this area, characterized by a limited human presence, the project would support sustainable land use practices; and

(c) Multiple use zone. Activities in the 370,000-ha multiple use zone will be managed by the Province. While due to the local phyisography no rivers flow from the zone into the core area, any potential mining operations would nevertheless require the development of an environmental mitigation plan as stipulated in the mining code (see below).

13. Its is also important to note the protected areas conditionality in the ongoing Mining Development Technical Assistance Project (Loan 3927-AR), which the Bank could use as leverage if needed to protect the GEF's proposed investments in the Biosphere Reserve under the Biodiversity project. Specifically, the Loan Agreement for the mining TA project requires the Borrower to: (i) ensure that no permits are issued for mining activities at any location that may affect materially and adversely, in the opinion of the Bank, the national Protected areas (Section 3.10 (b); and (ii) prohibit any mining permits within Provincial Protected Areas (including the San Guillermo Provincial Reserve/Buffer Zone) with narrowly-defined exceptions subject to the Bank's approval (Section 5.01 (e)).

14. *Área Protegido Copo* (APC). The proposed PA, protecting a portion of the semiarid Chaco and located in the Province of Santiago de Estero, corresponds to the Copo Provincial Reserve created in 1968. Since very little of this ecosystem exists in its pristine state, a 1995 study concluded that its protection was one of the highest regional

priorities for the conservation of the biodiversity of the continent[3]. Rare and endangered species characteristic of this ecosystem include: the jaguar *(Panthera onca)*, a species of peccary *(Parachoerus wagneri)*, the giant anteater *(Myrmecophaga tridactyla)*, and the giant armadillo *(Priodontes giganteus)*. The semiarid Chaco also contains some 200-300 species of birds and numerous reptiles. Past efforts to protect this highly vulnerable ecosystem (e.g., the *Reserva Natural Formosa*) have been insufficient to guarantee conservation of large tracts of this habitat.

15. For the last several decades, this ecoregion has been degraded by human pressure on its forest resources, which were initially used in the production of tannin and railroad ties and more recently, for fence posts and charcoal. At the same time, forest resources were undergoing additional pressure due to the conversion of forested area to agricultural and grazing lands. The most significant threats to the proposed APC are:

(a) Poaching. Wildlife poaching has been on the increase since petroleum exploration roads were constructed in the late 1980s;

(b) Poor forest management. The access roads have also facilitated the uncontrolled cutting and extraction of forest products, in particular firewood and charcoal;

(c) Grazing and agricultural activities: The magnitude and significance of these activities, which are beginning to affect the peripheral areas of the proposed PA, have not been well studied and are not fully understood. However, if these activities continue unabated in the reserve area, there is a risk that the ecological value of the buffer zone will be undermined and hence may pose a threat to the core area itself; and

(d) Unattended fires. APN reports an increased incidence of uncontrolled fires in the region, which are primarily started by local people to maintain and clear new lands for agricultural production.

16. The project will support the establishment of a PA consisting of a total area of approximately 180,000 ha. The core area would measure 114,250 ha and will consist of a national park and reserve. Under the project, APN will allow five families currently occupying these lands in the core area to remain, and will provide them with assistance to improve their standard of living through the provision of technical assistance for agro-forestry and improved housing. APN will also hire family members to work as park guards and firefighters. This assistance is detailed in the Mitigation Plan in Annex E. In addition, the province would create a provincial reserve of approximately 65,000 ha around the southern and western edges of this core area, which would serve as a buffer zone. The following management activities would be supported by the project:

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[3] See Dinerstein et al., 1995. *A Conservation Assessment of the Terrestrial Ecoregions of Latin America and the Caribbean* (World Bank/World Wildlife Fund, 1995).

(a) National park. APN would manage the core area as a national park, with traditional objectives of protection and control, emphasizing the prevention of wood extraction, illegal hunting, and cattle grazing. These management activities would include extended daily patrols to control human access and prevent illegal activities within the core zone. APN would also be responsible for monitoring activities to determine the health of the ecosystem and the number and distribution of the endangered species in the project area. APN would be further responsible for the preparation of management plans and annual operation plans that would consider such topics as project zoning, visitor use, community participation, institutional coordination, and public information and environmental education. Through its work in the core zone, APN would develop technical cooperation with provincial governments and private sector organizations. The core area would be internally zoned to include a small national reserve which would be managed by APN under its national policies; and

(b) Provincial reserve. In the provincial reserve, the project would focus on sustainable use, such as restoration and recovery of native forests, remnant species management, improved forest and grazing management, bee keeping, and ecotourism. To convince local people of the importance of these conservation activities, APN would initiate public information and environmental education programs oriented to people who live in or around the provincial reserve.

17. Under the current proposal, the eastern and northern borders of the core area may not be adequately buffered, suggesting that a larger protected area would likely be a necessity in the future. In recognition of this concern, APN has recently initiated a series of field activities in the relevant areas to better understand the existing situation. APN intends to hold discussions with provincial authorities in the neighboring Chaco Province as the next step to this eventual expansion.

18. *Área Protegido Quebrada del Condorito* (APQC). The proposed PA would protect important features of the landscape known as the *Pampa de Achala,* and would consist of a national park and provincial reserve situated in the Sierras of Córdoba. This section of the Sierras is geographically complex, featuring major watersheds feeding agricultural areas. These watersheds have formed major canyons which include the *quebradas* of *El Condorito, Batán, del Sur, Corralejo,* and *Yatán.* The PA is in the middle of the distinctive Córdoba Montane Savannas ecoregion and is bounded by the Andean highlands (northwest), the Chaco (northeast), the Pampas (southeast), and by the Cuyo and Patagonia (southwest), which makes it a unique transition zone for flora and fauna from all these regions. Despite the PA's relatively small size, one can find within its stark landscape a unique mix of plant and animal life that are typical of other regions of Argentina but that thrive here due to its central location.

19. The major threat to the proposed PA is poor land management practices. Specifically, years of overgrazing, deforestation and indiscriminate burning have caused

major environmental problems in the project area. There is evidence of serious erosion, destruction of riparian habitat, and degradation of vegetation cover.

20. The total area of the APQC is an estimated 183,000 ha, consisting of a core national park measuring approximately 37,000 ha and a provincial reserve measuring 146,000 ha. The management activities that will be supported under the component are:

(a) National park. Meeting the objective of conserving globally important biodiversity requires that the vast majority of the land within the proposed boundaries passes into public ownership, thus removing the possibility of poor land management by private owners. Once under public ownership, the park could be used for public purposes, such as camping and hiking. It could also be used as an outdoor laboratory for environmental education, and use as a research site to study vegetation succession and species reintroduction. Moreover, the proposed park would be used to help forge a new community consensus on the importance of preserving and protecting the area's biodiversity; and

(b) Provincial reserve. While the objective of preserving biodiversity would be central to the management of the provincial reserve, the priority management goal would be to integrate protection and production objectives into traditional land use activities. Land would remain under private ownership and property owners would receive training, technical and financial support for the introduction of sustainable agriculture and grazing. These landowners and other local community members with direct interest in the reserve would be invited to play substantive roles in the planning and decision-making processes related to resource management.

21. The core area was declared a national park in 1996 (*Ley Provincial* 8486; *Ley de la Nación* 24749/96). As a result, the land comprising the national park is now under national jurisdiction. Nevertheless, the land is still held in private hands and APN will need to begin the required legal process to formally acquire the 37,000 ha core area. Access to the protected area is controlled by private owners who currently permit some recreational use. Although grazing use has diminished due to reduced carrying capacity, most of the area is still grazed. Currently, there are eight families living within the park's boundaries. Under the project, APN will allow these families to remain and will assist them when their current work for landowners ceases. This assistance is detailed in the MP.

22. *Área Protegido Monte León* (APML). The proposed APML PA is designed to protect Patagonian coastal wildlife and avian populations--which are some of the least protected in Argentina-- in the province of Santa Cruz. The project area is typical of the zone, with the steppes of the Patagonian plains sweeping down to the steep cliffs of the shoreline, ending in the rocky beaches typical of the southern Argentine coast. The coastline cliffs have been sculpted over the centuries by the action of the sea and by the runoff from the steppes, leaving a series of canyons, grottos, and caves. The importance

given locally to the ecosystem has been underscored by the recent creation of a provincial reserve.

23. Central to the proposal to create the new PA is the preservation and protection of several important species that inhabit the protected area. The proposed area contains important penguin *(Spheniscus magellanicus),* cormorant and tern nesting areas, and a breeding ground for a species of sea lion *(Otaria flavescens).* Because of the relative isolation of the project area, the distribution and stability of the populations of these species are not well understood. Substantial inventory and species monitoring work remains to be done.

24. The major threats to the PA are:

(a) Illegal guano mining. The protected area is home to at least two large populations of nesting birds. The guano produced is collected for fertilizer, and these incursions into the PA disturb the birds during their nesting period, thus potentially causing seasonal reproductive failures; and

(b) Uncontrolled visitor use. Currently visitor use is permitted in the southern end of the proposed PA but, because of resource constraints, there is inadequate control of visitor movement, which leads to the disturbance of the wildlife.

25. The proposed PA will consist of a combined national park and reserve of approximately 7,000 ha. The seaward boundary has yet to be defined, but could extend out about three miles from shore. The national park designation would include the areas at the extreme ends of the proposed reserve, closest to the major wildlife population areas. These two sites would be connected by a national reserve. To avoid conflicts with traditional grazing uses, an agreement has been reached whereby, over a period limited to 30 years, APN would allow the existing two landowners to use winter pastures near the ocean, which are free from snow during the cold weather months.

26. The project would support the following management activities:

(a) National park. The principal management objective of the proposed national park would be to protect and preserve globally significant biodiversity contained within the project boundaries. An important step to achieve this objective would be to establish the national park as a conservation model for the provinces that contain Patagonian coastal wildlife. Provincial conservation officials could use the park as a source of technical and management information to build their own conservation and visitor management programs. The park would also serve to stimulate scientific research on ecosystems that are not well understood, especially for wildlife populations that have fluctuated considerably over time; and

(b) National reserve. The purpose of the national reserve would be to control visitor activities while still allowing local landowners access to winter pastures.

27. Unlike the other four PAs to be supported under this program, the APML core area will not be buffered by a provincial reserve; rather it will be protected by private lands through which access is limited. These lands are currently grazed by livestock, and this use presents little threat to the most important biological resources of the proposed park.

Management and Implementation of the Sub-component.

28. Implementation of New Parks. The proposed phasing for the implementation of the sub-component reflects a compromise between APN's capacity to manage the creation and development of multiple parks and meeting expectations in provincial capitals and in local communities. The schedule takes into account that two parks have already been legally created (San Guillermo and Condorito) and are therefore most appropriate for the first investments under the project. APN proposes to implement the protected area projects in the following sequence: (a) *Áreas Protegido San Guillermo* and *Quebrada del Condorito* would be developed in project year 1; (b) *Áreas Protegido Los Venados* and *Monte León* would be developed in project year 2; and (c) *Área Protegido Copo* would be developed starting in project year 3. For the three areas scheduled for project support in years 2 and 3, provision has nevertheless been made to establish a minimal institutional presence in year 1, together with the necessary basic support (e.g., park guard residences, vehicles, and communication system), to facilitate essential management and control functions.

29. Following the legal creation of each park, APN will follow a logical sequence of steps in the implementation of activities leading to the establishment of an effective management regime. These steps are outlined in the following table.

Table B-1. Proposed Sequence of Steps leading to the Establishment of an Effective PA Management Regime

Steps	Priority Actions
Establish an institutional structure for basic protection of the PA	1. Assign personnel and minimum equipment 2. Organize a vigilance and control program 3. Provide basic infrastructure and equipment to implement program
Develop community relations	1. Resolve problems of displaced people 2. Begin to identify interest groups 3. Identify potential members of the *comisión consultiva* 4. Begin environmental education program
Implement the planning process to be used for preparation of the initial management plans and annual operating plans (POAs)	1. Review available information and design studies to collect additional information 2. Involve the groups and institutions which will participate in the process
Analyze the most serious resource threats and the most critical social problems	1. Quantify the threats in terms of seriousness and immediacy 2. Conduct the necessary social inventories and interviews to understand the relationship between the park and the local communities
Identify and develop public visitation opportunities	1. Develop means of access and trails 2. Provide basic interpretation infrastructure
Design social and environmental mitigation plans (MPs)	1. Design MPs 2. Assign the necessary specialists to effectively monitor the MPs 3. Publicize results 4. Evaluate and periodically modify MPs
Support the project-financed sustainable use activities	1. Stimulate community interest in proposing sustainable development projects and programs 2. Fine tune the procedures to be followed by the *comisión consultiva* 3. Schedule the necessary meetings for the approval process
Establish the long-range PA planning process	1. Establish the working groups 2. Identify and access any necessary assistance (e.g., from the *Delegación Técnica Regional)* 3. Involve appropriate interest groups 4. Design the communication channels 5. Consult with the *comisiones consultivas*
Execute long-range biodiversity monitoring programs	1. Select indicator species 2. Design the programs to be used 3. Enter into collaborative agreements with scientific community. 4. Budget for the activity
Prepare the public information program	1. Determine the information to be disseminated 2. Determine audience 3. Design the appropriate media and implement program

30. Environmental Reviews. Under the mandate established in Law No 22.351 and resolution No. 16/94, APN requires that an environmental assessment be carried out for

every investment in protected areas under its jurisdiction, including the construction and maintenance of public services and tourist infrastructure. The requirements and administrative procedures are outlined in APN's *Reglamento para la Evaluación del Impacto Ambiental en Áreas de la Administración de Parques Nacionales*, a copy of which is available in the Project Files.

31. Each investment is screened and a decision is made on whether it requires: (i) a full *Estudio de Impacto Ambiental* (EIA), required for investments that are approximately equivalent to what the Bank would classify as an "A" category investment; (ii) a less detailed *Informe de Impacto Ambiental* (IIA), approximately equivalent to what the Bank would classify as a "B" category project with potentially significant impacts; and (iii) an *Informe Medioambiental* (IMA) for investments with very minor environmental impacts. The *Reglamento* outlines the required content for each of these reports; that content is consistent with World Bank requirements as outlined in the Operational Directive 4.01 on Environmental Assessment.

32. Under current administrative arrangements, the EIA, IIA or IMA will be prepared by APN staff or by consultants. The products of each of the analyses are submitted to the APN central directorate prior to taking a decision on the investments. In the case of an EIA, the Directorate appoints an evaluation commission composed of recognized experts to assist with the review. Following this external review, public consultation is solicited through notices in national and local newspapers prior to final authorization.

33. Under the project, most of the investments involve small works and repair to existing roads only and therefore would require either an IIA or an IMA. The total estimated costs for environmental reviews is US$150,000 and have been itemized in Table B-2 and included in project costs in Table B-4.

Table B-2. Estimated Level of Effort and Costs for Environment Review US$'000)

Protected Area		**Number of Studies per Environmental Category**			**Estimated Level of Effort (p/m)**	**Estimated Costs (US$,000)[4]**
	Type of Development Activities	**EIA**	**IIA**	**IMA**		
Área Protegido Los Venados	Rehabilitation of roads and houses; construction of offices, houses, trails, and lookouts and other small works	-	4	-	5	25
Área Protegido San Guillermo	Rehabilitation of roads , offices, and houses; construction of offices, houses, trails, and other small works		3	-	8	40
Área Protegido Copo	Rehabilitation of roads and construction of houses, research center , trails and provision of	-	5	-	6	30

[4] Estimated person-month costs consists of salary @US$3,500 per month , local travel@US$350 per trip, and per diem @ US$90.

	basic services					
Área Protegido Quebrada del Condorito	Rehabilitation of roads and construction of houses, garages, reception center, trails and provision of basic services	-	3	1	4	20
Área Protegido Monte León	Rehabilitation of roads and construction of houses, offices, research center and trails	-	6	-	7	35
Totals					30	150

Cost Estimates of Sub-Component 1

34. Investments for the five PAs have been estimated on a basis that provides the minimum support required to protect and manage each park, as itemized in Table B-3. The estimated costs for the sub-component are provided in Table B-4.

Table B-3. Major Investments to be Supported under the ABCP.

Investment	Protected Area				
	Los Venados (APLV)	*San Guillermo* (APSG)	*Copo* (APC)	*Quebrada del Condorito* (APQC)	*Monte León* (APML)
Civil Works					
Offices (new and renovations)[5]	360 m^2	470 m^2	420 m^2	460 m^2	250 m^2
Housing (new and renovations)[6]	400 m^2	380 m^2	360 m^2	500 m^2	320 m^2
Refuges/Patrol Cabins	-	80 m^2	-	120 m^2	190 m^2
Visitor Rest Houses	-	80 m^2	180 m^2	-	-
Equipment Sheds	-	-	-	100 m^2	-
Control Posts	45 m^2	-	-	40 m^2	
Camping Sites	-	-	-	30 m^2	-
Road and Trails					
Interpretative Trails	1 (15 km)	1 (7 km)	1 (10 km)	1 (9.1 km)	1 (1 km)
Road Repairs	1 (25 km)	1 (100 km)	1 (10 km)	1 (2.5 km)	1 (20 km)
Other Small Infrastructure					
Fencing	1 (16 km)	-	1 (30 km)	-	-
Observation Points	1	-	-	-	3
Corrals	-	-	2	-	-
Garages	-	2	1	-	1
Installation Services	-	-	-	-	1
Vehicles					
Trucks	-	-	-	-	1
Pick-ups	3	2	3	3	3
Jeeps	-	3	-	-	-
Motorcycles	1	1	2	1	1
Horses	8	16	8	10	3
Boats	-	-	-	-	1
Equipment					
Tractors	1	-	1	1	-
Mobile Homes	-	2	1	1	-
Computers	2	2	1	2	1
Communications	1	2	1	1	1

[5] In some cases these structures include combined interpretation and/or reception centers.

[6] Housing for superintendents and parkguards.

Fire Protection Equipment	1	-	1	1	1
Interpretative Equipment	1	2	2	2	1
Audio-visual Equipment	1	-	2	2	1
Garage/Workshop Equipment	-	1	-	-	1

Table B-4. Base Costs for the Creation PA Sub-component (US$'000)

Input Description	GEF	GOA	Total
Land Purchase, consisting of a total of 244,000 ha at an average cost of US$26.45/ ha.	-	6,454	6,454
Civil Works, consisting of a total of 4,785 m2 at an average cost of US$490/m2 and 13 small park infrastructure works (worksheds, fencing, etc.) at an average cost of US$22,470/structure)	2,362	287	2,649
Road Rehabilitation of 157.5 km at an average cost of US$ 3,952./km and 42.1 km of park trails at and average cost of US$ 1,368/km.	562	118	680
Vehicles (14 pick-ups at US$ 33,000/pu; 6 motorcycles at average cost of US$ 6,080; 45 horses at average cost of S$400/horse; 1 truck at US$45,000; 3 jeeps at US$40,000/jeep; and 1 inflatable boat at US$ 12,000).	573	121	694
Other machinery and equipment	500	106	606
Locally contracted consultants: 103 p/m at US$3,500 for preparation of legal documents to establish PAs, boundary demarcation and mapping, and the preparation and implementation of PA operational plans and other activities to support PA creation and management.	361	-	361
Locally recruited consultants for EIA Studies: 30 p/m at US$5,000 (including fees and expenses).	150	-	150
Locally recruited consultants for engineering design of small construction works: 92 p/m at US$3,500	322		322
Locally recruited consultants (including task costs) for special projects and studies, incorporating local scientific and community groups in park management and monitoring activities (this would include biodiversity baseline studies and threat analyses): 142 p/m at US$3,500.	497		497
Contracted Personnel, consisting of *intendentes* (204 p/m at US$2,500/month), parkguards (492 p/m at US$1,800/month), *baqueanos* (204 p/m at US$600/month) and administrative personnel (222 p/m at US$1,200/month).	-	1,784	1,784
Operation and Maintenance, including materials and supplies and related services (e.g., office cleaning and printing costs); vehicle operational costs for 1,246 million km at .40/km (US$498,400); maintenance of vehicles, buildings, and roads (US$244,000); APN per diem for 3,450 days at US$90 per day and 2,580 days at US$45 per day (US$426,000); public services (US$220,400) and other expenses (US$282,000).	1,381	290	1,671

Total Base Costs	6,708	9,160	15,868

Sub-Component 2: Buffer Zone Biodiversity Activities

35. The creation of new protected areas is necessary but alone is not a sufficient condition to ensure the long-term conservation of the country's biodiversity. Past experiences in Argentina and elsewhere have demonstrated that the failure to elicit community interest and support for the PA can undermine the achievement of conservation objectives. To achieve the project's objectives, APN must strengthen the linkages between the protected areas and local social and economic development. One way to promote this is to work with communities to establish stable and compatible production systems on lands immediately outside the core areas of the PAs (i.e., buffer zones). While the threats to core areas from buffer zone activities in Argentina are generally considered to be less serious than those in other countries, small scale investments with communities living in buffer zones should help enlist community support for and participation in protected area management. At the same time, through increased community involvement, APN will receive valuable input into the design of strategies that address both biodiversity conservation and local development.

36. Under this sub-component, APN and its counterpart institutions will undertake activities designed to identify and test sustainable land use practices in areas adjacent to the project's core national parks. Specifically, resources would be made available to support activities intended to identify and promote changes in land use in reserve areas leading to stable, sustained economic development compatible with conservation objectives. Activities supported under this sub-component can be broadly divided into three categories: studies, pilot natural resources activities, and extension activities emphasizing environmental education and information dissemination (examples of the type of activities that could be supported under the project are presented in the Implementation Manual). While sub-component support would be made available to communities in buffer zones of all project PAs, in light of the greater degree of threat to biodiversity resources of *Los Venados, Copo*, and *Quebrada del Condorito PAs*, most activities will likely be concentrated in these three buffer zones.

37. Following the implementation of a PA-specific public awareness campaign presenting the overall project context and basic principles of conservation and sustainable development, APN will be responsible for disseminating the relevant information to the public, specifying the objectives and procedures of the sub-component. Proposals would be submitted on a competitive basis and evaluated and approved using the following general criteria: (i) degree to which the proposed activity contributes to biodiversity conservation objectives, (ii) technical soundness and quality, (iii) economic/financial viability, (iv) arguments of sustainability, (v) community support for the proposal, (vi) level of co-financing; and (vii) capacity to successfully implement the proposal. The buffer zone activities are designed to have positive environmental impacts and any potential adverse impacts would be screened out during the selection process.

38. Proposal submission would be open to all interested parties including NGOs, research institutions, and farmers, the latter probably in associative arrangements. The PA's respective *comisión consultiva* (see below) will have the responsibility to initially evaluate the proposals following the established evaluation and selection criteria (see Attachment to this annex). Recommended proposals will be forwarded to APN for further evaluation; final approval would require the written agreement of the APN, the APN national project director and project technical manager. Following approval, a contract would be signed between APN and the successful bidder. The APN, through the Project Unit (PU), would monitor each contract and make payments as warranted (see Annex D for more details). Compliance would be audited by a consultant acceptable to the Bank. The provinces will play an important role in project selection through their participation in the *comisión consultivas* (CCs), and also participate in the supervision of sub-component activities under the responsibility of APN.

39. The Social Assessment Specialist (SAS), which will be cost-shared with the public participation sub-component (see below), will assist the PU in implementing this sub-component. The estimated costs for the sub-component are provided in Table B-5.

Table B-5. Base Costs for the Buffer Zone Activities Sub-component (US$'000)

Input Description	GEF	GOA	Beneficiaries	Total
One half-time, national consultant specialist in social assessment and public participation for 5 years at US$42,000/year.	105			105
Buffer zone activities consisting of an estimated 42 pilot activities at US$17,000/each and extension activities in four PA at a cost estimated at US$103,420 per year.	743	82	400	1,225
Operation and Maintenance consisting of an estimated 50 trips at US$300/trip and 150 days of per diem at US$90.00 per day and other expenses of US$75,000.	85	19	-	104
Total Base Costs	933	101	400	1,434

Sub-Component 3: Public Participation (Public Participation Plan)

40. Promoting active public participation in the planning and management of protected areas is increasingly recognized as a critical factor in building a successful conservation strategy. During the project preparation phase, APN undertook a Social Assessment (SA), which involved the collection of primary data through interviews and surveys of key stakeholders in both core areas and buffer zones (Annex E). These data served as an input into the preparation of a Public Participation Plan (PP). The PP, which is summarized here and detailed in the Project Implementation Manual, identifies the participatory methodology and process and activities to be supported under this sub-component. Activities which will be implemented under this sub-component in core areas will also be complementary to and in support of the activities specified in the Mitigation Plan (MP) which can be found in Annex E.

41. The project will support the development of an initial participatory approach and set of activities, which will be finalized during the consultation and public participation process. This process will be demand-driven and will be based on the concept of *interactive participation*, by which people participate in joint analyses, development of action plans and formation or strengthening of local institutions. The process would seek to take account of multiple points of view, and would employ systematic and structured learning experiences for the participants. Local people may thus have input in local decisions concerning the PA and how best to use available resources, thus building ownership of the established structures and practices. The participation process would consist of five elements: (a) contracting of a Social Assessment Specialist (cost shared with the previous sub-component); (b) creation of consultative commissions; (c) development of PA-specific participation plans (SPP); (d) training; and (e) implementation and supervision of the MP.

42. Social Assessment Specialist (SAS). A social assessment specialist would be hired to manage this sub-component and to facilitate the transfer of experiences gained from the public participation process beyond project boundaries, thus contributing to the strengthening of APN and other institutions responsible for protected areas management. The SAS would operate from the PU and would report directly to the project technical manager. Since the SAS would also be responsible for activities in buffer zone areas and neighboring communities, as well as act as the resource person within APN regarding participation issues, the costs would be shared with that sub-component. The TORs for the SAS are in the Implementation Manual.

43. *Comisión Consultiva* (Consultative Commissions). A *comisión consultiva* (CC) will be established during the creation of each new park to represent the interests of local stakeholders in park operations. As such, the primary objectives of the CCs will be two-fold: (a) to facilitate the development and implementation of a common, integrated management strategy for their respective protected area; and (b) to provide an institutional mechanism to ensure that active public consultation and participation occurs in the management of each PA.

44. Each CC will encourage public participation in the planning of field activities and in providing feedback on the execution of these activities. This will occur primarily through public involvement in: (a) identification of common, long-term management objectives; (b) providing inputs into the preparation of draft annual operating plans (POAs) for each of the project's respective protected areas (completed POAs will be made available to the CC for information); (c) provision of relevant technical information to the respective park and reserve managers; (d) identification of priorities and promotion of trans-boundary collaborative activities in each PA; (e) selection and evaluation of field activities which support innovative sustainable land use practices in the PA buffer zones; and (f) resolution of conflicts. The specific mechanisms to facilitate public input would occur through: (a) individual members of the commission serving in a liaison role between relevant public agencies and other stakeholders with jurisdiction or resource use interests in the buffer zone, and (b) general public meetings to be held throughout the life of the project. The TORs for the CC are included in the project Implementation Manual.

45. The composition of the CCs will represent a cross-section of the principal stakeholders in each PA. In addition to the three representatives from APN and the provincial and municipal government, each CC will have up to four and no less than two additional members representing universities, NGOs, local group associations, and relevant public institutions. The CCs will meet on a regular basis to review accomplishments, identify and respond to issues, and ensure that overall project objectives are achieved. The CC members will initially meet bi-monthly in the PA's first year and on a quarterly basis thereafter. The chairperson of each *comisión* will be selected by all the CC members on an annual basis. The operating costs for the CCs have been costed under the project's Protected Area's component.

46. Following the creation of a new park, APN, with the participation of the SAS, will organize a 2-3 day orientation workshop. These orientation workshops are intended to introduce CC members and park personnel to the process of interactive participation, adaptive planning, and tools for identifying and resolving potential conflicts. The workshop would also serve to define the procedures that would be used for collaborative action in the elaboration of POAs, evaluation of proposals submitted for support under the buffer zone activities sub-component, and other activities which will be specified in the implementation manual. At the end of the first year, technical personnel from APN and the PU would organize an evaluation workshop to monitor and evaluate the capacity of CCs for park management and to reorient the approach if needed.

47. PA-Specific Participation Plan. The objectives of the PA-Specific Participation Plan (SPP) are to: (i) collect, analyze, and apply relevant social information to project-supported activities; (ii) monitor and evaluate the social and economic impacts of park management plans, investments and associated sustainable development activities over time; and (iii) monitor the effectiveness of the MP for project-affected populations (PAPs).

48. To accomplish these objectives, the SAS would design a SPP for each PA through a consultative process between APN represented by the *intendente*, the respective CC, and

other stakeholders. Specifically, the SPP would establish the framework and procedures that would: (i) involve stakeholders in advising APN on the design of the park operational plans (POAs); (ii) help ensure that the provisional management plan is acceptable to stakeholders; (iii) identify areas of interaction between people and the proposed PAs and map out potential conflicts; (iv) develop the means to mitigate negative impacts to ensure commitment to sustainable development; (v) gather, analyze, and use operationally relevant social information, such as data on gender and high-risk groups (elderly people, women heads of households, landless, etc.); (vi) define a framework for ongoing participation during implementation, monitoring and evaluation; and (vii) assess the social impact of park management plans and associated eco-development projects over time.

49. A variety of social assessment methods would be used to achieve these objectives, including stakeholder workshops, consultations, and Participatory Rural Appraisal (PRA) techniques. The development and implementation of the SPPs would initially be the responsibility of the SAS, but this would eventually pass to the PA stateholders through the respective CCs.

50. Training. This cooperative approach to protected area management will require that APN managers and their local counterparts develop new participatory management skills and abilities. Training to be supported under the project would address: (a) the need for independence and self-sufficiency at the level of rangers and administrators at the DTR and park level; (b) community participation in the planning and decision-making process; (c) conflict resolution and mechanisms for integrating the results of public meetings into park plans and activities; (d) training of APN staff, NGOs, community leaders and other stakeholders in the development of innovative conservation agreements for areas containing both public and private land; and (e) training of school teachers to transfer the message of conservation to school groups in the vicinity of the PAs.

Mitigation Plan

51. The major goal of the MP is to minimize the negative impacts of park creation on those families and individuals who will be allowed to remain in the park. This includes loss of employment and loss of other amenities provided by the employer. The categories which make up the MP are: (a) *improved housing/sanitation;* (b) *employee compensation;* and *(c) extension activities. Improved housing/sanitation* include: housing improvement including renovations, and solar panels for electricity and materials to assist families in cattle raising during a transition period of five years. *Employee Compensation* refers to APN's plan to hire workers as park guards and firefighters and to provide training for other park management related jobs. In addition, in the new parks, where inhabitants are currently cutting timber for firewood or where some of their firewood needs are provided by the landlord, APN will provide wood or cover the costs for families to purchase gas or kerosene. *Extension activities* refers to a variety of support provided by APN to assist families and individuals in changing their production practices to meet household food and energy requirements. The costs for implementing this plan are estimated at about US$823,000, and are detailed in Annex E and costed in Table B-6. Additional details on

the specific activities and costs for the families residing in each park can be found in the Project Implementation Manual.

52. The estimated costs for the sub-component are provided in Table B-6.

Table B-6. Base Costs for the Public Participation Sub-component (US$'000)

Input Description	GEF	GOA	Total
One, half-time, national consultant specialist in social assessment and public participation for 5 years at US$42,000/year)	105	-	105
Social evaluation activities consisting of workshops, consultations, and SPPs estimated to total 100 events at an average cost of US$1,250.	113	12	125
Public participation activities, consisting of a total of 40 workshops at US$1,250.	45	5	50
Training activities, consisting of a total of 76 short courses at an average cost of US$6,447.	441	49	490
Travel costs, consisting of an estimated 50 trips at US$300/trip and 150 days of per diem at US$90. per day.	24	5	29
Trips and visits and other costs for the Consultative Commissions ($135,000).		135	135
Salaries for the baquenos and fire brigades and other costs associated with support under the Project's Mitigation Plan (see Annex E for detailed costs).	-	823	823
Total Costs	728	1,029	1,757

Attachment

Implementation of the Sub-Component: Buffer Zone Biodiversity Activities

Selection Criteria and Approval Process

1. The objective of the sub-component is to support sustainable development activities in the vicinity of the protected areas (PAs) created under the ABCP.[7] These activities would be specifically designed to reduce threats to the globally-important biodiversity. The process which APN would follow in selecting, approving and financing biodiversity protection sub-project activities is outlined in this Attachment.

2. The implementation of this sub-component would be planned, managed and supervised by APN through the PU, with the advice of the *comisión consultiva* for the respective protected area. While APN would have the freedom to take the initiative and to suggest a short list of possible activities regarded as high priority, the choice of specific activities to be supported under this sub-component will be based on a competitive system to access the latest thinking in Argentina and elsewhere on how best to respond to the challenges of the conservation of biodiversity. This competitive system would provide all interested parties with an equal opportunity to submit proposals and compete for funding, while leaving APN the responsibility to allocate and monitor the distribution of funds.

3. Each PA *comisión consultiva* will have the responsibility to complete an initial evaluation of the proposals according to the following criteria: (a) the proposed activity is a priority within the overall list of priority biodiversity conservation activities; (b) compliance with institutional selection criteria (see Implementation Manual); (c) expected outputs; (d) technical and economic feasibility; (e) degree of local community involvement in all phases of the project (i.e., planning, implementation and evaluation); (f) degree to which the proposal provides for local public access to information and technology; (g) degree to which it can be replicated and developed to include a larger area of impact; (h) degree to which it will promote local economic development and discourage emigration; (i) effectiveness in targeting intended direct/indirect beneficiaries; (j) level and duration of matching funds (minimum of 30% of the total); and (k) likely sustainability after completion.

4. The approval process for proposals would follow the following steps in each of the protected areas:

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[7] Due to the greater degree of threat to biodiversity resources in the buffer zones of the *Los Venados, Copo,* and *Condorito* PAs, most activities supported under this sub-component will likely be concentrated in these three protected areas.

(a) APN will place advertisements in the local and national press. Specific guidelines regarding project objectives, proposal requirements and submission procedures will be printed and made available on request;

(b) interested parties, including researchers, educational institutions, NGOs, farmers, etc., will, if needed, consult with the members of the relevant *comisión consultiva* for clarification of the rules, and to obtain a positive or negative response to their preliminary proposals, following the aforementioned advertisements;

(c) assuming a positive response to the inquiry and/or preliminary proposal, a detailed proposal would be prepared and submitted to the relevant *comisión consultiva*. Each proposal will need to consist of the following sections: (i) proposal objectives; (ii) description of task; (iii) methodology; (iv) a plan for completing the proposed program; (v) a chronogram of implementation; (vi) names of participants and/or researchers as appropriate, including their qualification and experience; and (vii) budget, and, in cases where farmer participation is involved, proof of land ownership (or other land occupancy rights);

(d) the CC would complete an initial evaluation of each proposal applying the previously listed criteria. On the basis of the evaluation, the committee would prepare and forward their written recommendation together with the proposal (including those recommended for rejection) to APN for further consideration;

(e) proposals received and approved by APN would require the written agreement of APN, the national project coordinator, and technical manager. A contract would then be prepared and signed between the APN and the parties involved with the project proposal attached as part of the contract. The contract would explicitly include: (i) the project objectives; (ii) expected outputs; (iii) description of task; (iv) methodology; (v) names of principal participants; (vi) chronogram of implementation; (vii) total costs, including matching funds; and (viii) schedule of payments by all parties, including APN. The contract's specifics would be prepared by the PU;

(f) APN, through the PU and the office of the *intendente,* would be responsible for the monitoring of project activities, and make periodic payments according to the schedule stipulated in the contract;

(g) principal participants (i.e., researchers, NGO consultants) would submit final written reports, listing achievements and failures and any departures from the contract;

(h) APN would recruit independent financial and technical auditors to audit compliance and evaluate results under each contract in order to ensure the integrity of the process; and

(i) APN would make final payment under the contract, or take other appropriate action, depending on the outcome of the financial and technical audit and evaluation /of the results.

5. Proposal submissions will be received during the second and fourth quarters of each year for a period of two months, respectively.

ANNEX C: BIODIVERSITY INFORMATION MANAGEMENT COMPONENT

(US$621,600 Base Costs)

A. Background

1. With the support of a loan from the Inter-American Development Bank (IDB), the Government of Argentina is developing a national environmental network called the *Sistema Nacional de Información Ambiental* (SINAIA). The network is to be Internet-based and will promote common data standards and sharing of environmental data between diverse users and organizations. Development of software and data standards was just beginning in late 1996, and it can be expected that the network will become functional within one or two years. Equipment acquisition and investments in connectivity are focused on the provinces which are expected to each have functional provincial nodes by the completion of the IDB project.

2. The backbone of the SINAIA will be very useful, in the sense that it will generally facilitate data exchange, but additional investments are necessary to ensure a functional biodiversity network. For example, special data standards and protocols need to be developed for species-level databases, ecoregion level data must be accessible from currently widely distributed databases, and there are special monitoring and reporting requirements associated with Argentina's adherence to the Convention on Biological Diversity.

3. A wealth of information is available on Argentine biodiversity, but it is widely distributed among many national and international organizations. The challenge is to organize a network of biodiversity data providers and users who could make data and information available on the Internet through an integrated information system. Such a network needs to become functional quickly to capture the tremendous value of currently underused data, but great care must also be taken to ensure compatibility with existing and planned international networks and developing internal networks, such as the SINAIA.

4. As part of preparatory activities for the SINAIA, the Secretariat of Natural Resources and Sustainable Development (SRNyDS) has conducted extensive surveys on existing environmental databases in Argentina. Information collected by them specifically on biodiversity databases will be used under this project to help develop a truly national network. Some examples of major data holdings are those of APN (discussed below); a database with about 2000 records or data sets on rare or vulnerable species held by the *Fundación para la Conservación de Especies y del Medio Ambiente* (FUCEMA); extensive data on the Patagonian Region held by *Fundación Patagonica*; extensive holdings of various museums such as the *Museo Argentino de Ciencias Naturales* and the *Museo de la Plata*; ornithological data of the *Fundación Miguel Lillo* in Tucumán and the *Sociedad Ornitológica del Plata*; and many databases held by universities. Of special note are the databases on native forests and biodiversity to be created within the SRNyDS and

financed under the associated Bank-financed Native Forests and Protected Areas Project. Internationally, to provide just a few examples, holdings of the World Conservation Monitoring Center, the World Bank, and Bird Life International all include significant data on Argentine biodiversity.

5. Because APN has been in existence for many decades and has a central role in the management and coordination of the country's protected area networks, the data holdings of APN are likely the single most important source of biodiversity data in Argentina. Presently, APN data holdings on the Patagonia Region (based in Bariloche) are the most developed and include extensive tabular and Geographic Information System (GIS) data, which covers the entire country. A fairly extensive database, managed by APN in Buenos Aires, also exists on the protected area network. Most APN biodiversity holdings, however, are still on paper or in need of considerable work to become generally accessible and usable. A biodiversity network in Argentina must first be built around these important holdings. Moreover, from the point of view of decision-making affecting the conservation of globally important biodiversity, APN is also probably the most important potential user of such a network.

6. It is therefore proposed that the GEF project develop a national biodiversity information network with pilot nodes[8] within APN. Through the Biodiversity Information Management Component, described in this annex, APN will become the first important host of a network that would provide universal access to internationally important APN holdings. The project will also provide training for non-APN data providers and users, while it also promotes the establishment of other nodes and the bringing on line of other major databases in the country. The ultimate objective of the component is to create a functioning biodiversity network that will eventually merge seamlessly into the SINAIA, and will include all major biodiversity providers and users in the country.

B. Overview of Component

Component Objectives

7. The main objective of this component is to develop a Biodiversity Information System (BIS) to facilitate the flow of biodiversity data and information, both within Argentina and internationally. The BIS will enable the creation, analysis, and application of biodiversity data and information to meet the needs of decision-makers and a wide variety of potential users. Under this project, prototype nodes of the BIS will be developed at APN, while the creation of other Argentine nodes will also be promoted. Potential users at APN include staff at the central office, park headquarters *(intendencias)* and regional technical offices *(delegaciones técnicas)*, as well as the general public. The BIS is

[8] In a distributed internet-based information network there are a potentially unlimited number of access points--essentially any computer with access to the Internet data is physically stored in only a very few particularly powerful computers called servers. A "node" is a server, or group of servers, with large amounts of stored and organized data and that typically provides network-wide access to software for retrieving and manipulating data.

intended to eventually fuse with the SINAIA as already described. To accomplish these objectives, the project will support the following activities:

(a) promote the BIS at the national level;

(b) develop the BIS;

(c) adapt major existing data bases to the BIS; and

(d) ensure sustainability through capacity building and training of interested users.

Overview of Biodiversity Information System (BIS)

8. Traditionally, in Argentina, information systems have been centralized, with access limited to only a few individuals and institutions. The emergence of the Internet and the World Wide Web (WWW) has enabled individuals and institutions greater access to information around the world, while it has also initiated a process of information decentralization. However, when information dissemination and decentralization occurs in an *ad hoc* fashion, users encounter major difficulties in locating specific data. The BIS will provide capabilities for overcoming this problem while maintaining the benefits of distributed information dissemination. While the BIS will appear to the user as a unified, integrated system, it will be geographically distributed among various nodes.

9. The BIS will allow for data search through a catalog system and for browsing of selected databases. It will include textual, tabular, and cartographic information, as well as abstracts, bibliographical data, and other types of data and information, including GIS data. Any computer in the world with Internet access (even if only e-mail) will be able to use the BIS and retrieve information. The information system will be designed using available software packages and international standards, to the extent that these are available, and it will be open-ended to facilitate incorporation of additional data and information from other institutions.

10. The BIS initially will include fully developed nodes at the central office of APN in Buenos Aires, at the Patagonia Regional Technical Delegation in Bariloche, at the Northeast Regional Technical Delegation in Salta, and at the Northeast Technical Delegation in Iguazú. The network of BIS nodes that would be created under this project will be the forerunner of a more extensive network that will be fully developed in the near future. These four nodes will be Internet providers of data and information. On-site personnel will identify data sources and develop collaborative agreements with other data sources as needed, while bearing the responsibility to maintain their own metadata[9]. Data handling, in the form of acquisition, conditioning, archiving, and data product development, will mainly be the responsibility of local experts.

[9] Metadata is structured information that describes a dataset.

11. Each node will consist of one or more Internet servers, the number depending on the amount of information being disseminated and the service offered. Nodes generally have additional workstations for data development and other node administration tasks, as well as peripheral devices for scanning, storage, and back-ups. The Internet provides the connectivity between individual nodes and users. Thus, active nodes need a minimum of a 64-kb Internet link. The means of providing connectivity of these nodes to the Internet will be determined in the future. Options include using existing providers at APN or relying on external Internet service providers.

12. The software required at each node will depend on the specialized service to be offered by that node. The concept that each node will have specialized functions is a critical feature of the BIS because it will allow the nodes to provide the most appropriate function given their content and mission. As such, modules will be available for a variety of computer system configurations to ensure a match with existing systems. The modular approach of the BIS encourages diversity and customization, and at the same time provides mechanisms for seamless integration and ease of implementation.

C. Detailed Description and Costs

Promotion of the BIS

13. Design Confirmation. Changes in information technology and its use in Argentina are occurring constantly. Consequently, it is important that an evaluation of this component be carried out by a consultant at the very beginning of the project. The consultant will advise on the restructuring of the component, taking into account changes in the status of information system technology within the country. This will be done in conjunction with a coordination workshop (see below) which will provide recommendations concerning system function and the status of connectivity, hardware, and software at the nodes. The cost for this task is US$15,000, which includes honoraria, travel and per diem for an internationally recruited consultant (Draft Terms of Reference are in the Implementation Manual).

14. Coordination Workshop. An organizational workshop will be held at the very beginning of the project to promote and coordinate participation of major information holders and users, with particular attention to non-APN stakeholders. During this workshop, a technical *ad hoc* working group will review the system design and implementation plan. The consultant hired to carry out the design confirmation should participate in this workshop and take into account recommendations that emerge from it. The cost for this task is US$10,000 for about three months of a locally recruited consultant.

15. Evaluation Workshop. After the BIS prototype has been developed and is operational (third year), a workshop will take place to evaluate the BIS and its contents, and to provide further recommendations on how to proceed with the development of the system. At this point, it must be ensured that the system is ready to be integrated with the SINAIA and integrated with other initiatives, such as those of provincial protected areas,

universities, NGOs, and research institutions. The estimated cost for this task is US$5,000 for a locally recruited consultant.

Creation of the BIS

16. System Design. The entry point of the BIS, which will be designed early in the first year of the project, will be a home page in the World Wide Web. The home page, to be created under this project at an APN node, will be user friendly and will allow the user to search for and access biodiversity data, both within as well as outside APN. The home page would provide links to a catalog and to biodiversity datasets that will reside in servers at APN and elsewhere. This task will be carried out with support from a consultant, consulting firm or NGO recruited internationally at a cost of US$20,000, and by locally recruited experts at a cost of US$24,500.

17. Development of Software for Internet Access to BIS. Many options will be provided for data access through the Internet. These will include WWW access as well as e-mail access to data. The system will allow for on-line interactive access to APN data and documentation about data[10]. Data query and display functions will allow a user to construct a query of a database. The database could be a simple tabular file, a relational database, or a text file. The query terms would be appropriate to the database content and structure. Based on the user's query, a report would be generated and displayed to the user. In some instances, in addition to or instead of tabular reports, a graphic report or visualization would be available. Spatial data will be displayed in maps, allowing the user to interactively build maps with features and GIS data layers of interest. A metadata management tool--including guidelines for metadata and guide preparation--will be developed which will allow the data provider to structure and automatically enter metadata into a searchable metadata database.

18. The BIS will support several methods for accessing information. This will include capabilities to: (i) query tabular and textual data sets and retrieve tabular reports and graphs interactively; (ii) query and map georeferenced data interactively; (iii) search bibliographical datasets by author and topic; (iv) search (freetext and indexed) metadata databases in selected nodes through a World Wide Web user interface; and (v) spatially search metadata databases. The map search system will allow the user to find information on any given area in Argentina by interactively selecting the area of interest in a World Wide Web user interface. This service requires the metadata to be georeferenced.

19. Information that cannot be accessed interactively on-line will be available through ordering systems, and in some instances, customized extractions will be available. The information system will be implemented in a fashion that takes into account the telecommunications infrastructure of Argentina. For example, e-mail interfaces to on-line systems will be provided, enabling users to access some resources via e-mail.

[10] Some datasets can be of restricted access, available for example only within APN.

20. This system software development will be implemented during the first 18 months of the project by an internationally recruited consultant in coordination with trained APN personnel, at an estimated cost of US$70,000.

Adaptation of Major Databases to the BIS

21. Modernization of APN datasets for on-line access. Under this activity, data will be restructured to make them available over the Internet and through the BIS. This process may involve: (i) developing electronic data; (ii) developing a data model and relational tables for a Relational Database Management System (RDBMS); (iii) georeferencing data in a Geographical Information System; (iv) integrating datasets; and (v) other activities needed to make datasets available through the system. It is estimated that, after the first year, the prototype will access 5-10 tabular and textual datasets and 5-10 GIS layers, depending on the degree of complexity of the datasets involved.

22. This activity will be carried out by a locally recruited consultant at an estimated cost of US$120,000, in coordination with an internationally recruited consultant at an estimated cost of US$55,500. APN staff will work with these consultants as a way to ensure capacity building and sustainability. A cost of US$20,000 has also been budgeted for purchasing images and other data development costs.

23. Documentation of datasets. There are two kinds of documentation: one, called metadata, is part of a catalog system that should be structured in a way that it enables a user to determine whether or not the data may be of relevance to the application of interest. The second kind, referred to as guides, enables the proper use of data by providing more extensive descriptions on how data were collected and derived.

24. There are numerous metadata standards that specify how datasets are structured and the type of information they will contain. In general, metadata is textual information that provides the basis upon which a data catalog can be constructed. The level of detail provided by the metadata should be sufficient to enable a user to determine whether or not the data may contain information of relevance to the specific need. The information resource must be readily and easily accessible from some source and all metadata records must be georeferenced.

25. The metadata standards chosen for the BIS would be consistent with the nature of the data and with the system that will manage and query the metadata. Use of existing systems for metadata management and access will be a major consideration when choosing the standard. The metadata contents will be developed from existing data documentation and structured and entered into the catalog by the holders of the data, when possible.

26. Guides are hypertext[11] documents that provide users with important information related to a dataset. Each accessible dataset will have a guide associated with it. The information in the guide will help the user to determine whether the data have the required

[11] Text coded to link to other sources of information/data.

resolution or accuracy. It will also describe how data were collected or derived, as well as describe any peculiarities associated with a given dataset or any information that could be of interest to the user of the data. The development of the data guide is estimated to cost US$65,100 for a locally recruited consultant over a period of three years.

27. Information Management for the GEF Biodiversity Strategy Project. The SRNyDS-implemented GEF Biodiversity Strategy Project, to be carried out in 1997, will be generating vast amounts of biodiversity information. Under this component, the most important information generated from that strategy will be made available through the BIS. This activity will be carried out during the first year by a locally recruited consultant, at an estimated cost of US$11,500.

Capacity Building

28. The objective of this activity is to help establish an effective and sustainable information system through the provision of the following training:

(a) Data provider training. Data provider training will be conducted in three stages: (i) to insure the sustainability of the BIS, APN staff will obtain approximately three months of on-the-job, on site training by the consultants contracted to develop the system. It is expected that these APN staff will each spend three months receiving on-the-job training; (ii) during the third year of the project, an internationally recruited consultant will provide two 1-week data provider training sessions to non-APN information management stakeholders on subjects such as participation in the BIS, interactive WWW applications, and metadata development; and (iii) Bariloche staff will train others on methods for map production. The respective budget for these training activities would be: (i) five round trips (US$2,000 each) from Buenos Aires to the internationally recruited consultant site (US$10,000) plus US$25,000 for subsistence; (ii) approximately 5.8 months of internationally recruited consultants (US$58,000); and (iii) three trips to Bariloche (US$1,050) and three months of subsistence (US$8,100).

(b) User training. During the third year of the project, a national consultant will be contracted to provide ten one-day training sessions on the use of the BIS and other internet resources for APN and non-APN users of the system. Those trained in (a) above, could help with this training. About US$10,500 has been budgeted for about 3 months of a locally recruited consultant.

Hardware and Software Needs

29. This prototype BIS activity will support the acquisition of the hardware and software necessary to implement the network at APN. As mentioned in the background section, four nodes, with a main function of providing data over the Internet, will be

developed. These nodes are referred to here as Data Provider Nodes and the software at each node depends on the service to be offered by that node. In general, a node will consist of four categories of equipment:

(a) Servers. A node will consist of at least one server, depending on the variety and scale of node activities. Likewise, the hard disk capacity of the server will depend on the node activity. A data back-up system will be provided with each server. Database software and specialty software such as GIS are optional and depend on the function of the node;

(b) Workstations. The node administration staff will need workstations and personal productivity software to develop metadata and other data and information resources and for related tasks. The quantity and configuration of these workstations will vary depending on the expected function;

(c) Peripherals. Printers will be required for developing hard copy output and scanners are required for digitizing text and graphics. A black and white scanner with a page feeder is best for scanning text, but a color scanner is required for capturing images; and

(d) Networking. All the computers in the node will be on a local area network and have Internet connectivity at a minimum of 64-kb. Nodes that provide remote access to either users or staff will need a modem pool with a remote access server.

30. Sample Kit For Data Provider Nodes. The equipment and software suggested here may not be needed at all nodes, and will depend on the equipment already available at each individual node. The kit consists of: (i) a Pentium Pro 200 Mhz (64 MB Memory, 4.3 GB drive, 17 in. monitor); (ii) a printer; (iii) a scanner; (iv) a network adapter card; (v) software (Windows NT Operating System, Oracle, Microsoft Word, IDRISI, ArcView, etc.); (vi) a backup tape unit; (vii) 2 workstations; and (viii) a digitizer. The estimated cost per kit is US $18,000 per node; the total cost is US$72,000, plus US$21,000 for system upgrades and maintenance. Equipment acquisitions will take place during the first year.

D. Implementation Arrangements

31. A prototype system, including the BIS home page, will be developed early in the first year of the project. At the end of 18 months, one of the nodes will host a catalog system and provide access to selected tabular biodiversity datasets, while another node will be set up with a map server and will provide access to GIS layers. During the second and third years of the project, emphasis will be placed on making biodiversity data sets available, including non-APN holdings. By the end of the third year, a fully functional operating system will be in place with a core set of biodiversity data. Throughout the life of the project, new biodiversity data and information will be made available to the system.

32. The system development will be carried out by an internationally recruited consultant with participation from APN staff. This participation is important since APN will be expected to maintain the system after initial development.

Table C-1. Base Costs for the Biodiversity Information Management Component (US$'000)

Input Description	GEF	GOA	TOTAL
Equipment	113.0	-	113.0
Internationally recruited consultants for a total of 20.3 p/m at US$10,000 per month, which includes all expenses except domestic travel and subsistence outside Buenos Aires.	160.0	-	160.0
Locally recruited consultants for 68.9 p/m at US$3,500 per month, which includes all expenses except domestic travel and subsistence outside place of residence..	101.1	-	101.1
Training	83.5	-	83.5
APN Personnel (System Analyst)	-	120.0	120.0
Domestic travel and subsistence outside Buenos Aires for internationally recruited consultants and outside place of residence for locally recruited consultants calculated at the rate of about US$300 per trip and US$90 per diem.	44.0	-	44.0
Total Base Costs	510.6	120	621.6

ANNEX D: MANAGEMENT, MONITORING AND EVALUATION COMPONENT

(US$609,650 Base Costs)

A. Project Management

Project Unit

1. To ensure the efficient implementation of the project, a Project Unit (PU) will be established within APN. The PU's primary responsibilities will be to: (a) coordinate the activities identified in the project implementation manual; (b) cooperate with APN's *Dirección de Administración* in the monitoring, control, and accounting of the project funds; (c) supervise the management of the project's special account to be administered by the *Dirección de Administración;* (d) prepare the disbursement requests in compliance with Bank policies; (e) ensure that the project's purchase of goods and services comply with norms and procedures acceptable to the Bank; (f) prepare the necessary documentation required for Bank auditing purposes; (g) maintain routine communications with the *intendentes* of the new protected areas and through them the *comisiones consultivas;* (h) verify the work of the *comisiones consultivas*; (i) monitor and regularly inform the *comisiones consultivas* on the status of disbursements for their respective protected areas; (j) monitor the project as per the Monitoring and Evaluation Plan described below; (k) monitor the implementation of the MP; (l) prepare annual project work plans and give guidance to *intendentes* in the preparation of PA-specific POAs; and (m) prepare other technical reports including the mid-term and final project evaluations.

2. The PU will consist of a full-time technical manager and a full-time accountant and administrative assistant. The technical manager will be the project's contact point for international organizations as well as with the national government and the participating provincial governments. This core group will be reinforced by the contracting of consultants on an "as-needed" basis to assist with procurement, monitoring and evaluation, and the completion of a mid-term project review. In addition, a full-time Social Assessment Specialist supported under the project will be based out of this office (this has been costed under the project's Protected Area's Component; see Annex B).

3. It is proposed that the PU be established directly within the APN under the Board of Directors and report to the President, who would designate the appropriate APN directorate to coordinate the PU activities with other APN offices. Adequate office space will be provided by APN as a counterpart contribution.

Project Management at the Field Level

4. To ensure that the project achieves its proposed objectives, there will be a need to develop an innovative management structure for each PA. In recognition that the biological and ecological boundaries of each PA cross multiple administrative jurisdictions, the proposed management structure places a strong emphasis on institutional collaboration at both the national and provincial levels. Moreover, in light of the diversity of interests

among stakeholders which could be affected by the conservation efforts, the proposed management structure would also encourage strong representation and participation from non-governmental organizations, private interests and other local groups (see Annexes B and E for more detail).

5. In recent years, APN has increasingly involved the public in the planning and management of protected areas (e.g., through the development of visitor plans, public participation in the development of EIAs, and solicitation of the views of NGOs in the preparation of management plans). Nevertheless, APN recognizes that a great deal remains to be done to encourage public participation in the planning and management of protected areas.

6. At the field level, the generic PA management structure for the new parks will be based on the creation of a multi-institutional consultative commission (*comisión consultiva*). The structure and role of the CCs are discussed in detail in Annex B.

Costs for the Component

7. The estimated cost for the Project Management, Monitoring and Evaluation component is US$ 610,000 (Table D-1).

Table D-1. Base Costs for the PU (US$'000)

Input Description	GEF	GOA	TOTAL
PU personnel consisting of a FT technical manager (US$ 54,000 x 5 years), a FT accountant (US$ 20,000/year x 5 years), and a FT administrative assistant (US$ 18,000 x 5 years).	390	72	462
Domestic travel (30 trips) and subsistence outside place of residence for project staff (270 days), calculated at the rate of US$ 90/day for per diem and US$ 350/trip.	35		35
Technical Assistance (20 p/m) allocated for procurement (4 p/m), monitoring and evaluation (8 p/m), and mid-term project evaluation (8 p/m) calculated at the rate of US $ 3,500/p/m.	70		70
Equipment	15		15
Operating costs for the PU		28	28
Total Base Costs	510	100	610

B. **Monitoring and Evaluation Plan and Indicators**

8. The Project's Monitoring and Evaluation (M&E) plan is based on the establishment and monitoring of key input/output and impact indicators. Table D-2 presents a summary of the M&E plan presented by project component including the projected timing of outputs. This is followed by Table D-3, which identifies key

input/output indicators also presented by project component/sub-component. Table D-4 identifies key impact indicators presented by project objective and timing of impact assessment. Finally, Table D-5 identifies the main reporting documents, timing, and institutional responsibility with regard to M&E reporting.

9. A distinction needs to be made between: (a) the Monitoring and Evaluation Plan (M&E) for the overall project, including specific monitoring and reporting activities funded here under this component; and (b) monitoring activities to be carried out within each of the PAs of the project. The latter are funded as part of park management activities and include collection of baseline information and biological monitoring. Similarly, PA-specific social assessment and monitoring will be addressed through the development of participation plans, as called for under the project's Participation Plan (PP--see Annex B for more detail on PA-specific activities). Some of the data which will be collected as part of PA-specific activities will be used as input to the M&E plan.

10. Institutional responsibilities for the implementation of the M&E plan are: (a) APN will have overall responsibility for M&E Plan implementation, supervision of specific studies, assisting *intendentes* with PA-specific monitoring activities, the mid-term and final project reviews, and the final preparation of PA-specific POAs and project progress reports; (b) the project's PU will assist APN in M&E Plan implementation, in contracting studies, incorporation of data from the specific PAs, and in the preparation of all project reports. M&E institutional responsibilities are specified in greater detail in the project's Implementation Manual.

Table D-2. Summary of Monitoring and Evaluation Plan

Development Objectives	Inputs *Resources provided for project activities*	Outputs *Goods and services produced by the project*	Timing of Outputs		Outcomes and Impacts *Results achieved through provision of goods and services*
			Start	Finish	
Protected Areas Component					
D.O. 1. Increase protection of non-represented biodiversity in ecological regions of global significance	· Support for legal steps for park creation · Land purchase in four of the five PAs · Park personnel contracted · Preparation of management plans · Construction of new and rehabilitation of existing park infrastructure	· Five newly created national parks and reserves · Demarcation of PAs · Management plans implemented	12/97 12/97 12/98	12/02 12/02 12/02	· Five effectively managed and protected national parks and reserves · Protection of globally important biodiversity · Expansion and diversification of Argentina's national protected area system
D.O. 2. Promote sustainable land use practices in areas adjacent to protected areas	· Contracting of SA specialist · Conduction of public awareness campaigns · Pilot projects	· Demonstrable examples of sustainable land use practices	12/98	12/02	· More sustainable use of biodiversity in buffer zones · Increased community support for protected areas and biodiversity conservation
D.O. 3. Increase public participation in the creation and protection of each protected area	· Contracting of SA specialist (same person as above) · Creation of CCs · Establishment of specific participation plans · Stakeholder workshops	· Increased institutional capacity in APN to promote public participation in protected areas activities · Establishment of PA-specific socio-economic baseline and monitoring programs · Public participation consultative mechanism	3/98 6/98 6/98	03/03 6/02 6/01	· Broaden and diversify public support for protected areas · Reduced social conflicts associated with protected area management decisions · Increased national/provincial coordination and cooperation · Reduced external threats to protected areas
Mitigate the negative social impacts associated with park establishment	· The mitigation plan and associated resources	· Household improvements, employee compensation and sustainable activities	3/98	12/02	· Negative social impacts mitigated and quality of life of affected families improved
BIS Component					
D.O. 4. Increase access to biodiversity data	· BIS system design (including workshops) · Purchase of computer hardware · Software development · Database re-configuration · Technical assistance and training	· Development of BIS · Establishment of prototype nodes in APN headquarters and 4 DTRs · Increased BIS management capacity of APN and non-APN information management stakeholders	1/98 3/98 3/98	3/00 3/99 3/01	· Increase national and international exchange of biodiversity information · Provide foundation for the development of a more extensive BIS network · Provide increased capability to monitor status of globally important biodiversity resources · Facilitate informed decision-making · Support the implementation of the Argentina biodiversity strategy
Project Management and M&E Component	· Establish a project unit · Key staff hired	· Increased efficiency in project implementation, funding disbursement and control	12/97	12/02	· Project objectives are achieved in a timely and cost-efficient manner

Table D-3. Key Input/Output Indicators

KEY INPUT INDICATORS	YEAR 1	2	3	4	5	SOURCE OF DATA
	(Percent or Number Completed)					
A. Protected Areas Component						
1. Establishment/Consolidation of PAs						
Approval and signing of national park laws[1] (no.)	2	2				Legal instruments
Land purchase completed	2	1	1			Administrative records and legal instruments
Identification and placement of *Intendentes* (no.)	1	2	2			Administrative records, interviews
Demarcation (km)	TBD					
Management plans completed (no.)		1	2	2		Administrative records
Installed building infrastructure (m^3)	654	1,160	1,606	902	304	Administrative records
PA-specific Monitoring Plans (no.)	1	3	1			Administrative records
2. Buffer Zone Activities						
Person/years social assessment specialist[2] (no.)	1	1	1	1	1	Administrative records; interview
Public awareness campaigns completed (no.)	1	2	2			APN annual and semi-annual reports ; field interviews
Pilot activity proposals approved (no.)	2	5	5	5	5	Administrative records
Pilot activities completed (no.)		2	5	5	5	APN annual and semi-annual reports ; field verification
3. Public Participation						
Meetings of *comisiones consultivas* (no.)	24	32	28	20	20	APN annual and semi-annual reports; field interviews
PA-specific participation plans (no.)	1	2	2			APN annual and semi-annual reports; field verification
Stakeholder workshops held (no.)	5	5	5	5	5	APN annual and semi-annual reports; field interviews
Training programs presented (no.)	4	18	18	18	18	APN annual and semi-annual reports; interviews
Mitigation Plan						
Home improvements (no.)	2	5	4	4	2	Administrative records; APN annual and semi-annual reports; field verification
Person months contracted (no.)	265	265	265	265	265	Administrative records; APN annual and semi-annual reports; field verification
Firewood delivered (tons)	168	168	168	168	168	Administrative records; APN annual and semi-annual reports; field verification
Sub-projects approved in core areas (%)	10	30	60	100		Administrative records; APN annual and semi-annual reports; field verification
B. BIS Component						
Information system design completed (%)	50	100				APN annual and semi-annual reports; product reviewed
Workshops completed (no.)	1		1			APN annual and semi-annual reports; field interviews
Home Page completed (%)	50	100				APN annual and semi-annual reports; system tested
Major databases reconfigured (no.)		2	3	3		
Trained APN personnel (no.)		8	40			APN annual and semi-annual reports; interviews
Trained APN and non-APN users (no.)			200			APN annual and semi-annual reports; interviews
Hardware/software procured (%)	50	100				Administrative records; field verification
C. Project Management M&E Component						
Project unit staffed (%)	100					Administrative records; interviews
PU equipment procured (%)	25	100				Administrative records
Monitoring programs in place (%)		25	50	100		APN annual and Semi-annual reports
Mid-term review completed (%)		25	100			Product received and reviewed

[1] National legislation creating PN Condorito has already been signed and so is not included in the indicator targets.

[2] To be cost-shared between sub-components 2 and 3 of Protected Areas Component.

Table D-4. Key Impact Indicators

KEY IMPACT INDICATORS	TIMING OF IMPACTS		SOURCE OF DATA AND MEANS OF MEASURING PERFORMANCE INDICATORS
	Start	Finish	
D.O. 1. Increased protection of biodiversity in ecological regions of global significance			
Effective management of new PAs			
· Increased provincial presence in provincial reserves around project federal PAs	NA	02	· Consultant contracted at beginning of Year 5 to review APN and provincial records and conduct interviews to ascertain significant developments.
· Fewer disturbances and incursions into PAs (illegal resource harvesting such as poaching, deforestation, etc.)	98	02	· Review of *Intendencia*-generated patrol logs, incident reports, monthly and annual reports and interviews with park rangers and local inhabitants.
Increased protection of key indicator species			
· Stable populations of key indicator species, to be chosen in year 1 of project (e.g., sea lions, giant anteaters, native pampas grasses, etc.)	98	02	· Baseline established prior to end of first year following creation of each PA and re-assessed in PY 5 by collaborative research agreement with universities and other scientific organizations.
D.O. 2. Promotion of sustainable use of biodiversity in areas adjacent to protected areas			
· Adoption of sustainable land use practices by non-project participants measured through changes in existing land use patterns	00	02	· Consultant contracted at beginning of PY 5 to conduct field survey of adoption of new land use practices based on technologies generated and/or disseminated during LOP.
D.O. 3. Increase of public participation in the creation and protection of each protected area			
· Development of local public groups and activities which support PA objectives	NA	02	·*Intendente* records and local interviews.
· Majority of members of CCs satisfied with degree of participation in the CCs	98	02	· Review of APN records and survey questionnaire of member organizations.
· Creation of CCs in other national and provincial PAs.	NA	02	· Review of APN records and survey questionnaire of relevant provincial PA institutions.
Mitigation Plan			
· Income levels of affected families restored/improved.	98	02	· Household surveys and beneficiary assessments.
· Social organization of affected families maintained/improved.	98	02	· Household surveys and beneficiary assessments.
· Affected populations satisfied with effectiveness of mitigation measures.	98	02	· Household surveys and beneficiary assessments.
D.O. 4. Increase access to biodiversity data			
· Number of non-APN log-ons to system (to provide or access data) increasing throughout life of project	98	02	· Assessment of BIS activity records.
· Development of a more extensive BIS determined through the creation and integration of additional information nodes	NA	02	· Assessment of BIS activity records and survey of node creators.

Table D-5. Monitoring and Evaluation Reports

Report	Timing	Responsibility
Technical Reports	Periodic	Consultants/contractors to submit to PU/APN
Semi-annual Progress Reports	1/31/yy	APN
Annual Progress Reports	7/31/yy	APN
PA-specific POAs	6/98-6/21	APN
Project POA (draft)	EOFY[1] (previous)	APN
PA-specific Management Plans	2002/03	APN
Financial Audits	EOFY + 6 months	Independent Auditors
Mid-term Review	6/2000	WB
Implementation Completion Report	6/2003	WB

[1] EOFY = End of Fiscal Year

ANNEX E: SOCIAL ASSESSMENT AND MITIGATION PLAN

A. Background

Introduction

1. The goal of the proposed GEF project is to conserve biodiversity of global importance. To achieve this goal, one of the principal outputs will be the creation of five new protected areas (PAs): (a) *Área Protegido Los Venados* (APLV), located in the Province of San Luis; (b) *Área Protegido San Guillermo* (APSG), located in the Province of San Juan; (c) *Área Protegido Copo* (APC) found in the Province of Santiago del Estero; (d) *Área Protegido Quebrada del Condorito* (APQC) in Córdoba Province; and (e) *Área Protegido Monte León* (APML) located on the Patagonian coastline of Santa Cruz Province. Because three of these protected areas--*Los Venados, El Copo,* and *El Quebrada del Condorito*-- have people living within the boundaries of the proposed PAs and in their respective buffer zones, a full social assessment (SA) was completed during project preparation. The information contained in this annex presents, in summary form, the results of the SA. The original study documents can be found in the Project Files.

2. Objectives of the Social Assessment. The principal objectives of the SA were to: (a) evaluate the social and economic conditions and attitudes of people living within the areas of the proposed three PAs; (b) identify the potential social and economic impacts associated with park creation; (c) identify priority needs for affected families and communities; (d) identify and analyze alternative mitigation measures in conformity with GOA and Bank requirements; (e) evaluate options that may exist to increase public participation in the park management and decision making process; and (f) prepare Public Participation (PP) and Mitigation Plans (MP).

3. Social Assessment Methodology. Between January 1997 and April 1997, an interdisciplinary team carried out the SA which involved: (a) a review of relevant studies and documents; (b) an initial identification and subsequent analysis of potential stakeholders and social issues in the three proposed PAs; (c) consultations, in-depth interviews and household surveys of families and communities living in the proposed PAs[12]; (d) informal workshops between APN staff, the local social assessment consultant and potential stakeholders; and (e) meetings with officials from the provincial ministries and technical staff from the *Instituto Nacional de Tecnología Agropecuaria* (INTA). Household surveys were conducted in both the core areas and adjacent buffer zones in all of the proposed PAs with the exception of APSG and APML. In the latter two PAs, survey activities were limited to the buffer zone because of the absence of inhabitants in

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12. Since the precise park limits are not yet known , the social assessment focused on the population living in the proposed core areas and corresponding buffer zones (see maps of the proposed core areas with the inhabitants identified). If and when modifications to the proposed park boundaries occur, it would be necessary to update the social assessment as well as the resulting mitigation plan to include the population living in the new park areas.

the core area. Similarly, because of the absence of inhabitants in the APML PA, no formal survey was required (see below for more detail).

4. All heads of households were interviewed in the three populated core areas. During the course of the interviews the SA team collected data on the households' survival strategies, including employment and income levels, as well as socio-demographic, organizational and cultural characteristics of these families. This information, in turn, was used to evaluate the proposed project's impact on these households and determine whether resettlement was a necessary and viable option. This information also provided valuable input into the design of the Buffer Zone Activities and Public Participation and Training sub-components (see Annex B) and the Mitigation Plan (Annex E-Attachment 1). In the case of the Buffer Zone subcomponent, because of the spatial distribution of the population and the number of individuals involved, only a sample of the total population was surveyed. Copies of the survey can be found in the project file.

B. Social Structure, Employment and Income in Core Areas and Buffer Zones

5. The major stakeholders identified in the three PAs were large landowners, agricultural workers, poor small farmers, public institutions (both at the national and provincial levels), NGOs, and universities. No indigenous people live in these areas. Findings for each of these core areas and for the buffer zones are detailed below.

Área Protegido Los Venados

6. Core Area. In the APLV the landowner is an absentee entrepreneur who lives in Buenos Aires. He employs a full-time agricultural engineer and contracts outside technical assistance to run his extensive farm operation. Living in the core area are 10 people comprised of two families and three individuals, all of whom work for this absentee landowner. The basic source of livelihood is wage labor. The farm workers' average monthly wage income is US$ 270. Non-monetary income of these families, including subsistence agricultural production consumed by the family and other amenities provided by the landowner (e.g., social security, cooking gas and food) is estimated to be worth approximately US$ 105 per month per family. Social relations between these families and the landowner are primarily contractual and ties among these families are mainly through their work.

7. Based on the responses obtained during the SA, the owner appears willing to sell the land to the APN and remove any cattle from the core area. Similarly, information derived from household interviews indicated that farm laborers are willing to change their occupation provided they receive the required training, are offered alternative employment, and receive wages commensurate with the duties of the new employment. Additional details on activities to be supported can be found in the MP (see Attachment 1).

8. Buffer Zone. The buffer zone is occupied by 25 people comprising four families and nine individuals. A total of 16 people were interviewed. Similar to the core area, most

of the wage earners work as employees of large cattle ranches. The average monthly wage is about $270. Most families have electricity, use gas or kerosene for cooking, and use firewood to heat their homes in the winter. Family units tend to be quite isolated from each other and horseback is the major means of transportation. There are no farmer cooperatives or associations in the area. Those interviewed believe that the creation of the park will have little effect on their daily lives.

9. A number of governmental agencies, universities, and NGOs have a presence in the area. In addition to APN and the provincial government, the most important are the: *Instituto Nacional de Tecnología Agropecuaria* (INTA), *Ministerio de Industria, Turismo, Minería y Producción, Dirección de Medio Ambiente* , and the University of San Luis. The area also has a fairly strong environmental NGO presence, including the *Fundación Vida Silvestre Argentina*, the *Asociación Conservacionista Equilibrio Vital* and the *Asociación Mercedina Ecológica*. INTA staff were instrumental in the design and creation of the proposed PA and would likely continue to play an important role during project implementation.

Área Protegido San Guillermo

10. Core and Buffer Zone. There is no population in the core or buffer zones of San Guillermo. To assess the potential social impacts in the area of influence of the park (nearby human settlements), interviews of key individuals in the Iglesia Department and analysis of secondary data generated by the Social Research Institute of the National University of San Juan, INDEC and APN were undertaken. Additional information was provided by the Provincial government of San Juan and the *Fundación Ambientalista Sanjuanina*, a local NGO.

11. Approximately 2,000 people live in 14 communities in the Iglesia Department, and most are located at a distance of 50 km or more from the *San Guillermo* core area (only one family lives as close as 10 km). The Department's population density is less than one person per square kilometer. The major economic activities include: small-scale farming and animal raising, handicrafts, small scale mining and, more recently, tourism. In the towns, some individuals are employed in a variety of public sector jobs and in small businesses. Because of the isolated location and arid conditions, agriculture has a low level of productivity and profitability. Textile production is the major activity of the handicraft sector, and is an important cultural and economic activity for women. The exploitation of minerals-- primarily calcium sulfate, copper sulfate, sodium sulfate and lead--also provides sporadic employment. The Cura Valley is a site for exploration of gold, copper and iron, however, most mine workers are brought in from other regions of Argentina.

12. The SA team interviewed a broad cross section of stakeholders including large and small farmers, the handicraft association, small-scale agro-industry, local tourism businesses, municipal government and journalists. Of the people interviewed during the SA, most were generally pleased to know that the existing Reserve will become a national park and expressed a desire to be kept informed. Moreover, most people felt that the new

park would have a positive impact on their families and hoped that the expected increase in tourism and its related employment opportunities would serve to keep young people from migrating outside of the area.

Área Protegido Copo

13. Core Area. While there are no landowners in Copo, there are currently 24 people, comprising five families, living on land in the core area. Unlike the other PAs, this land belongs to the Province of Santiago del Estero (i.e., *tierra fiscal*) and the government considers these people to be *occupants*. Most of these individuals colonized the area more than 60 years ago and survive by raising livestock and cutting timber. Although the families have no legal land titles, the provincial government has granted them certain rights. The SA substantiated previous accounts that there are no large landowners in the core area and the inhabitants of Copo are very poor.

14. Information collected during the interview process suggests that these individuals are willing to change their occupations provided they receive the required training, are offered alternative employment, and receive wages commensurate with the duties of their new employment. Additional details on activities to be supported can be found in the MP.

15. Buffer Zone. Forty persons comprising 12 families reside in the buffer zone. Two of these families have title to land which they acquired under the 1980 Colonization Plan. The rest are *intrusos* (squatters) who occupy land without title but expect to receive title under a Provincial land titling plan. Employment and income is based on relatively small-scale livestock production. In some areas cotton production has become important. Throughout the buffer zone, timber cutting is important as a source of income and as a source of domestic energy. There are no formal producer cooperatives or associations in the area.

16. A number of governmental agencies, universities, and non-governmental institutions have a presence in the area. In addition to APN and the provincial government, other institutions include the University of Salta and the University of Santiago del Estero. The communities which fall under the administrative jurisdiction of the Municipality of Guanacos have both social and economic relations with those individuals residing in the core area. The two key NGOs working in the area--ECOGEO and FUNDAPAZ --have extensive experience working with small farmers in the design and implementation of natural resource management programs.

Área Protegido Quebrada del Condorito

17. Core Area. There are eight absentee landowners in the Condorito core area who manage their lands through foremen. On the existing land holdings, there are eight families comprising 36 people. Of these, 10 are wage workers who live with their families and have contractual arrangements with their respective landowners. Estimated average monthly income is US$ 270 per worker/month. In addition these families participate in some subsistence agricultural production and receive fringe benefits and other amenities

(e.g., social security, grazing rights, firewood and food) which in total are estimated to be worth about US$ 100 per month. The results of the SA indicate most of these families have lived in the area all their lives and are closely linked to local communities. Families place great value on education and are keen that their children achieve a high level of education. All children attend rural schools in or near the PAs, where they are provided with lunch and in some cases health care.

18. During the SA process, the aforementioned land owners expressed their willingness to sell their land to the APN and remove all cattle. Similarly, while the families and individuals living in the core area said they would prefer to stay in the area rather than to be resettled, they were willing to change their occupations provided they receive the required training, are offered alternative employment, and receive wages commensurate with the duties of the new employment. Additional details on activities to be supported can be found in the MP.

19. Buffer Zone. There are currently 144 families living in the Condorito buffer zone. Of these, 17 family heads of household were interviewed during the SA. Based on the results, it appears most of the families live on their own private, titled lands. Formal employment is limited primarily to public sector positions such as teachers and general school workers, provincial television station workers, and road maintenance crews. Other sources of subsistence/income include: the raising of livestock for their own consumption and/or for sale in nearby small towns, growing vegetables, and the use of forest resources for firewood and home construction. During January and February some tourism-related work is also possible. The average monthly salary is estimated to be US$ 250 (teachers' salaries are considerably higher).

20. The families interviewed expressed concern over the impact of park creation on their production activities. Many of these families have close relations with the families living in the park and are worried about how those people will be affected. They also expressed concern over the restrictions on future grazing and cutting of trees in the park.

21. A number of provincial governmental agencies, universities, and non-governmental institutions have a presence in the area. The most important are: *Ministerio de Producción y Trabajo, Ministerio de Salud y Medio Ambiente,* INTA, the Nacional University of Córdoba, and Fundación Condor. The data seem to suggest that relative to the families in the core area, families in the buffer zone have more experience dealing with formal institutions.

Área Protegido Monte León

22. Core and Buffer Zone. Due primarily to the fact that in the proposed core and buffer zones there are only two large *estancias* that have only two permanent workers, the approach used by the SA team was abbreviated and consisted of interviews with the landowners and/or e*stancia* foremen and with specialists from the *Fundación Patagonia Natural,* a local NGO. This information was complemented by an analysis of secondary

information from government agencies and from the *Universidad Nacional de la Patagonia Austral.*

23. The area around the site of the proposed park is sparsely populated--largely limited to individuals working on neighboring *estancias* outside of the proposed PA. Economic activity in the nearest town Puerto Santa Cruz, which is about 40 km from the core area, is dominated by the fisheries sector. The natural beauty of the area has also begun to attract tourists. Increased tourism however, could pose a threat to the environment of the area if not managed properly. With this in mind, project activities will be focused on environmental education and the controlled promotion of ecotourism.

C. Social and Economic Impacts of Park Creation

24. Most of the social impacts brought about by the creation of the national parks will be associated with the purchase of the land and concomitant termination of existing employment agreements between landowners and workers. Specifically these impacts will consist of loss of: (a) wage income; (b) other benefits provided by the landlord; and (c) income and subsistence benefits associated with changes in livelihood systems brought about by restrictions to the use of these lands (e.g., prohibitions on animal grazing and timber cutting). Table E-1 provides a summary description of the socio-economic impacts of park creation on populations living in core areas and buffer zones.

25. Total monthly incomes (including benefits) have been estimated on an individual or family basis in the three core areas (Tables E-2 to E-4). These figures were used as a basis to assess two options: (a) resettlement, and (b) provision of alternative employment and income which would allow project-affected families to remain in the core areas. Based on the resulting analysis it was concluded that losses and associated mitigation costs would be substantially greater if the families were to be resettled since this would require the provision of housing and land for cattle raising. As the data indicate, under the second option the proposed mitigation measures would, in most cases, result in a substantial increase over existing income levels (in approximately 30% of the cases these increases would exceed 100%). Details of these measures are provided in the MP.

Table E-1: Potential Socio-Economic Impacts on People in Proposed Core Areas and Buffer Zones

Protected Area	Threats to Population in Core Area	Threats to Population in Buffer Zones	Sustainable Pilot Activities	Support through Extension Activities
***Los Venados* (APLV)**	Elimination of wages and other benefits such as social security payment, cooking gas, and food. Gradual elimination of *traditional systems of* extensive livestock raising.	Gradual elimination of traditional systems of extensive livestock raising	*Recovery of degraded natural grasslands and Wildlife. *Sustainable soil and water management practices. *Wildlife management and breeding to produce meat, leather and feathers. *Small-scale plantings of natives tree and shrub species (*Prosopis)*	*Sustainable rangeland management *Wildlife conservation *Fire management. *Agrotourism/Ecotourism. *Formation of environmental production Co-ops. *Environmental education programs for primary schools, agriculture schools and university students of the region.
***San Guillermo* (APSG)**	No people reside in core area	No people reside in buffer zone *programs to increase ecotourism opportunities will be implemented in communities located in the Iglesias Department	*Womens' traditional handicraft programs *Restoration of degraded areas, *Revegetation with native species, medicinal herbs and shrubs. *Camelids breeding program *Non conventional energy	*Informal education program. *Environmental education program targeted at the local community *Ecotourism

Table E-1: Socio-Economic Affects of Park Creation on Populations in Core Areas and Buffer Zones (continued)

Protected Area	Threats to Population in Core Area	Threats to Population in Buffer Zones	Sustainable Pilot Activities	Support through Extension Activities
Copo (APC)	Gradual elimination of traditional systems of extensive livestock raising. Gradual implementation of restrictions on cutting timber	Gradual elimination of traditional systems of extensive livestock raising. Gradual implementation of restrictions on cutting timber	* Native forest restoration and sustainable management program. *Agroforestry management program *Development of alternative forest products program.	*Forest management training *Environmental education programs targeted at neighboring communities.
Quebrada del Condorito (APQC)	Elimination of wages and other benefits such as social security payment, cooking gas, and food. Loss of access to firewood Gradual elimination of traditional systems of extensive livestock raising.	Gradual elimination of use of park land for cattle grazing and the elimination of use of other park resources such as firewood and timber for housing construction Over time the elimination of traditional livestock raising systems Reduced income from changes in livestock production system	*Recovery and management of degraded grasslands programs. *Fire management *Reintroduction of camelids for leather, meat and wool production. *Fuelwood plantations with native species (maitén, prosopis, tabaquillo) and exotic (sauce mimbre, acacias, other species). *Aquaculture to supply restaurants and other tourism services. *Local crafts *Ecotourism development	*Sustainable natural resource management training program. *Community Center strengthening plan. *Ecotourism *Environmental education program targeted at the local community and local schools.

Table E-1: Socio-Economic Affects of Park Creation on Populations in Core Areas and Buffer Zones (continued)

Protected Area	Threats to Population in Core Area	Threats to Population in Buffer Zones	Sustainable Pilot Activities	Support through Extension Activities
***Monte Leon* (APML)**	No negative impacts are expected as there are no people living in the core area.	No negative impacts are expected over the people residing in the buffer zone	Programs to increase ecotourism opportunities will be implemented in the buffer zone	Programs to increase ecotourism opportunities will be implemented in the buffer zone

Table E-2: With and Without Project Comparative Analysis of Incomes for People Living in the Parks' Core Areas

Average Annual Family Income With and Without Project (US$)			
Park Core Area	Income without project	Income with project	Percentage increase
Los Venados	7,542	8,300	10
Copo	4,435	8,160	84
Condorito	6,423	8,550	33

D. **The Legal Framework for Mitigation of Impacts in National Parks**

26. The 1981 National Park's Law No. 22.351 and the subsequent Decrees No. 2148/90, 2149/90 and 453/94 prohibit the presence of human settlements in national parks and monuments with the exception of those cases which are necessary for the management and control of the PA (e.g., park guards and firefighters). Customarily , APN has allowed the people living in the PAs to remain there and has integrated them in the rehabilitation programs (e.g., *Los Alerces* and *Lanin* National Parks). Therefore, within the legal framework, exceptional circumstances, such as those presented in the proposed new protected areas, may be accommodated in a manner that would abide by the legal norms.

27. The development of the Project's MP was guided primarily by APN's resettlement-rehabilitation policies (and the World Bank's Operation Directive 4.30). In the design of the MP, the plan allows for a flexible, demand-driven approach based primarily on the improvement of existing physical infrastructure and provision for income-generating activities and welfare restitution for project-affected populations. Involuntary resettlement will therefore, in principle, be avoided, taking advantage of all viable alternative project designs.

ATTACHMENT 1

THE MITIGATION PLAN

Background/Rationale

1. During the project preparation phase, a team of local specialists undertook a detailed socio-economic analysis (SA) of families and communities living in the five proposed protected area sites. A summary of the methodology and principal findings can be found in the Social Assessment Summary (Annex E).

2. The main objectives of the SA were to determine: (i) the number of people living on lands which will be reclassified as protected areas (PAs) under the project, (ii) sources of livelihood, and (iii) the social-economic impacts of PA creation and management. The team was also charged with evaluating and recommending whether resettlement would be required or if other management options are viable to permit existing inhabitants to remain where they are. Based on the results of the SA, the team, in consultation with those families living within the core areas of the proposed PAs, local authorities, and APN staff, prepared a Mitigation Plan (MP) which addresses the socio-economic impacts associated with park creation. While the SA covered all five proposed PAs and their respective buffer zones, populations which may be adversely affected by the project were found in only three parks (*Área Protegido Los Venados, Área Protegido Copo, Área Protegido Quebrada del Condorito*). This affected group subsequently became the focus for the development of the MP's proposed mitigation measures.

3. Based on the results and recommendations of the SA and taking into consideration existing APN policies, it appears that no families or individuals will need to be resettled and a Mitigation Plan has been designed on this basis. This is consistent with prevailing Bank guidelines (O.D. 4.30, described in the project implementation manual), which provides that resettlement should be avoided or minimized where possible. In order to prevent the negative social and economic impacts of park establishment and to support the integration of human populations into park management, APN has prepared a framework for mitigation and specific mitigation measures for each of the three parks.. The MP is summarized below and is detailed in the Project Implementation Manual. In the unlikely event that families or individuals would need to be resettled in the future, Bank policy guidelines on resettlement, as set forth in OD 4.30, will be followed.

Mitigation Plan

4. The SA provided the data required for the preparation of a general framework for: (a) mitigating the negative social and economic consequences associated with the creation of the Pas; and (b) integrating local inhabitants into the park management and decision-making process. The specific mitigation measures proposed in the MP will apply only to

those families and individuals who lived and worked on the land in the new national parks as of March 31, 1997.

5. The major mitigation measure categories comprising the mitigation framework are: (a) *Infrastructure Improvements,* (b) *Employee Compensation*[13], and (c) *Extension Activities and Production Support.* Specific mitigation measures were designed for each of the three parks. However, as the park boundaries are still under revision, the MP may require some adjustments in the future. To ensure that appropriate mitigation measures are in place, APN will obtain the Bank's approval of the specific MP for each of the parks before the execution of works. A description of the MP and budget presented by park can be found in Tables 1-5.

Área Protegido Los Venados

6. *Infrastructure Improvements.* The mitigation measures proposed include the provision of materials for the improvement of six houses, including the installation of bathroom accessories such as toilets and sinks as well as the improvement or construction of a new house for the family currently living in the "*casco*" of the *hacienda*.

7. *Employee Compensation.* People living in the core area will be hired as either assistant park guards (*baqueanos*), firefighters, or other categories of park personnel for a total employee compensation of US$249,000. The hiring of the *baqueanos* will begin in Year 1.

8. Over the life of the project (LOP), the total cost of these mitigation measures is estimated at US$ 274,000.

Área Protegido Copo

9. *Infrastructure Improvements.* The proposed mitigation measures consist of the installation of five solar panels for electricity generation and the construction of five water tanks.

10. *Employee Compensation.* People living in the core area will be hired as either assistant park guards (*baqueanos*), firefighters, or other categories of park personnel for a total employee compensation of US$204,000.(see Table 3).

11. *Extension Activities and Production Support.* Families and individuals will receive support and the required inputs for the improvement of native forests and sustainable agro-forestry production.

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[13] Employee compensation measures include three different types of contractual arrangements: (i) Full time park guards hired by APN; (ii) Part time firefighters hired by APN and (iii) Part time workers hired by private contractors. All employees hired by APN will receive social security benefits. In the case of type (iii), private contractors will be required by APN through the bidding documents to hire individuals living in the core park areas for a total of 260 person/month over five years, at a monthly salary of US$ 600.

12. Over the LOP, the total cost of these mitigation measures is estimated at US$ 285,250.

Área Protegido del Quebrada Condorito

13. *Infrastructure Improvements.* The proposed mitigation measures consist of materials for the renovation of six houses. In the case of one family which will leave the park area voluntarily and relocate nearby in the buffer zone, APN will cover the costs of completing construction of the house and provide materials for raising of animals.

14. *Employee Compensation.* People living in the core area will be hired as either assistant park guards (*baqueanos*), firefighters, or other categories of park personnel for a total employee compensation of US$342,000. In addition, APN will provide all families with firewood as compensation for the wood that was previously provided by the landowner.

15. *Extension Activities and Production Support.* Extension activities and production support materials (e.g., fencing) will be provided to all individuals and families to assist them in maintaining a limited number of cattle for a transition period, not to exceed five years.

16. The total cost of these mitigation measures is estimated at US$ 322,770.

17. The total costs of the MP, estimated at some US$ 994,020 are detailed in Tables 1-5 and in the Project Cost Tables (Annex H). Implementation of the MP will be the direct responsibility of APN. When required, *convenios* will be prepared with other organizations, including national government agencies, provincial government agencies, NGOs and the private sector. In cases in which APN will hire people living in the PAs to serve as *baqueanos* or other park-related employment, standard employee contracts will be prepared. Of the total cost associated with the mitigation plan, US$ 823,000 will be financed by the GOA. Incremental costs (US$ 171,000) of the MP, derived from the works required for the establishment of the park areas, will be financed by GEF.

18. In addition to these mitigation measures, it should be noted that project-affected populations can also participate fully in the complementary activities developed under the Project's Buffer Zone Biodiversity Activities and Public Participation sub-components. Specifically, through training and targeted education programs in participatory planning, sustainable resource management, and ecotourism development and management, PA inhabitants will have an opportunity to make a valuable contribution to the park's management and at the same time be involved in decisions that directly affect their daily lives. Participation in these activities will also be available to families and communities living in the buffer zones of the three parks (see Annex B for more detail).

Table 1 Summary of Employee Compensation by Park and Type of Contract (Full/Part Time)

	Los Venados	*El Copo*	*Condorito*	**Total**
Full time				
Months (pm)	180	240	360	780
Salaries (US$)	108,000	144,000	216,000	468,000
Part time				
Months (pm)	235	100	210	545
Salaries (US$)	141,000	60,000	126,000	327,000
Total				
Months (pm)	415	340	570	1,325
Salaries (US$)	249,000	204,000	342,000	795,000

Table 2: Mitigation Activities, Timetable and Costs for *Área Protegido Los Venados.*

MITIGATION PROGRAM	TYPE OF ACTIVITY	TIMETABLE					COSTS
		1	2	3	4	5	
INFRASTRUCTURE							
	House (6) improvements (install latrines)	x					**$25,000** [1]
Employee Compensation							
	Wages	x	x	x	x	x	**$249,000**[2]
Total							**$274,000.-**

Table 3: Mitigation Activities, Timetable and Costs for *Área Protegido Copo*

MITIGATION PROGRAM	TYPE OF ACTIVITY	TIMETABLE					COSTS
		1	2	3	4	5	
INFRASTRUCTURE							
• infrastructure	House improvements (5), water tanks and solar panels						$22,500 [1]
COMPENSATION							
• Income Sources	*Baqueanos* and Firefighters.	x	x	x	x	x	$204,000 [2]
SUSTAINABLE USE ACTIVITIES							
Improvement of native forests	Extension and production support	x	x	x	x	x	$10,000 [3] $20,000.
Sustainable agro-forestry	Extension and production support	x x	x x	x x	x x	x x	$10,000 [4] $18,750.-
Total							**$285,250.-**

Table 4: Mitigation Activities, Timetable and Costs for *Área Protegido del Quebrada Condorito*

MITIGATION PROGRAM	TYPE OF ACTIVITY	TIMETABLE					COSTS
		1	2	3	4	5	
Infrastructure							
Improvement of housing and other infrastructure.	House improvement(6), installation of bathrooms	x					$19,000. [1]
Subtotal							**$19,000**
• **Employee Compensation**							
Wages		x	x	x	x	x	$342,000 [2]
Provision of firewood		x	x	x	x	x	$ 43,600 [3]
Subtotal							**$345,600**
• **Sustainable Use Activities**							
Support to sustainable livestock production during a five year transition period.	Technical assistance , extension and production inputs.	x x	x x	x x	x	x	$ 30,170 [4]
Subtotal							**$ 30,170**
Total				**$ 434,770**			

Table 5. Estimated Costs for the Mitigation Plan (US$'000)

Input Description	GEF	GOA	Total
Infrastructure for 18 houses (i.e. housing improvement, installation of water tanks and solar panels).		51.50	51.50
Employee Compensation (13 *baqueanos* at $ 7200 per year and 545 person/month at US$ 600 per month)		639.00	639.00
Transportation of Firewood (6200 km @.05 cts/km)		43.6	43.6
Sustainable Use Activities Extension and Production Support		88.9	88.9
House improvement in Los Venados (i.e. construction of one house)	15		15
Funds for hiring people living in core areas as part time workers (through private contractors) [14]	156		156
Total Base Costs	**171**	**823**	**994.5**

[14] 260 person/month at a monthly salary of US$ 600 (US$ 156,000) that will be hired by private contractors to carry out required park works.

ANNEX F: INSTITUTIONAL ANALYSIS

Protected Areas in Argentina

1. Argentina has a long history of conservation, dating back to 1903. In that year, the pioneering conservationist, Francisco P. Moreno, donated 7,500 hectares (ha) in an area near Bariloche to the government, with the promise that the land would be used for the enjoyment of all the Argentine people. This donation was the basis for what eventually became the country's flagship national park, Nahuel Huapí. In 1934, the agency that manages the system, *Administración de Parques Nacionales* (APN) was created (at the time it was called *La Comisión de Parques Nacionales*). The APN has since become a semi-autonomous agency under the *Secretaría de Estado de Recursos Naturales y Desarrollo Sustentable* (SRNyDS).

2. The existing system of national protected areas consists of 31 parks and reserves of various classifications (Table F-1) covering 3.02 million hectares. In addition, there are 197 provincial parks and reserves, covering approximately 11 million ha, or 4.5 percent of the surface area of the country. Provincial parks and reserves include those under the jurisdiction of provincial governments, municipal governments, national universities, under private ownership, or a mixture of two or more of these entities. Only 123 of the 197 provincial parks and reserves are actually administered exclusively by provincial government bodies. Of the remainder, 28 are in private ownership, 19 are administered by municipal governments, 9 are administered by the ICyT (*Instituto Nacional de Capacitación y Tecnología*), 3 by provincial universities, and 15 are under a mix of two or more of these groups. While the creation of these non-federal parks has served to publicize the importance of protection of the nation's biological diversity, most all are in need of effective management.

National Protected Area Administration

3. Structure. The lead agency responsible for managing the country's national protected areas is the *Administración de Parques Nacionales* (APN), a semi-autonomous agency within the *Secretaría de Estado de Recursos Naturales y Desarrollo Sustentable* (SRNyDS). Under the recent reorganization of the Nation's public sector, associated with the Second Reform of the State, APN is headed by a Board of Directors (*Directorio*) which consists of a president, a vice president, and four representatives from SRNyDS, the Secretariat of Tourism, and the Ministries of Defense and Interior, respectively. In the recent 1997 reorganization of APN, under this Board there are two national directorates and one coordination directorate: the *Dirección Nacional de Conservación de Areas Protegidas*, the *Dirección Nacional del Interior*, and the *Dirección General de Coordinación Administrativa*.

Table F-1. Protected Area Classification and Management Objectives in Argentina

Protected Area Categories	Management Objectives
National or Provincial Parks	Conservation of natural habitat, prohibiting virtually all economic activities with the exception of tourism.
Strict Nature Reserves	Conservation of significant habitat and/or species. No economic activity is allowed.
Natural Monuments	Conservation of unique natural areas - public use is permitted, although severe restrictions are in place to protect biological systems.
Natural Reserves	Conservation of critical habitat for one or more species of recognized national importance - public use is permitted, although restrictions are placed on most uses.
Protected Landscapes	Conservation of areas of natural or cultural significance, including landscapes modified by past human land uses - management actions are designed to sustain the existing landscape conditions.
Resource Reserves	Conservation of natural areas which have been subject to limited previous scientific investigation - only traditional low-impact land uses by local populations are permitted.
Natural/Cultural Reserves	Conservation of areas with important natural or cultural significance, particularly areas inhabited by indigenous or aboriginal communities - management plans are based on agreements drawn between the traditional communities and APN
Multiple Use Reserves	Conservation of areas which have experienced some degradation through human land use - management plans are based on sustainable land use practices aimed at restoring ecosystem functions.
Biosphere Reserves	These reserves are designed to include a strict protected core zone surrounded by a multiple use reserve. Biosphere reserves are designated by the Man and the Biosphere Program of UNESCO.
World Heritage Sites	Conservation of areas of exceptional world values, including geological, biological or cultural principles. These sites are also designated by UNESCO

(a) *Dirección Nacional del Interior* (DNI) whose principal function is to supervise APN operations and ensure they are in compliance with the institution's mandate and policies. Under the DNI there is one directorate (*Dirección de Coordinación Operativa*) responsible for the planning of monitoring and control systems and combating fires in the Nation's parks and reserves. Administratively, APN's 13 *intendencias* also report directly to the DNI;

(b) *Dirección Nacional de Conservación de Areas Protegidas* (DNCAP) responsible for planning, programming, and formulation of conservation policies and strategies, including public use of the nation's PAs. This national directorate is also responsible for protection, management, sustainable use, research, interpretation, recreation and monitoring activities. Under the DNCAP there are two directorates: (i) *Conservación y Manejo,* responsible for the management and conservation of the country's protected ecosystems; and (ii) *Interpretación y Extensión Ambiental,* responsible for interpretation, extension activities, and public relations; and

(c) *Dirección General de Coordinación Administrativa* (DGCA), responsible for coordination of APN's budgetary process including the preparation of the annual budget and supervising and controlling its implementation, personnel administration and training, and public works and concession policies. Under the DGCA there are four directorates: (i) *Administración, Recursos Humanos y Capacitación, Obras e Inversiones Públicas*, and *Aprovechamiento de Recursos.*

4. At the field level and under DNI's *Dirección de Intendencias de los Parques,* there are 13 *intendencias* responsible for the operational management of one or more of the national protected areas, including relations with provincial and municipal governments. Typically, the administrative structure of an *intendencia* consists of three functional units responsible for administration, works and infrastructure maintenance, and conservation management and control. In addition, under DNCAP, there are four *delegaciones técnicas regionales* (DTRs) whose primary responsibilities are to provide technical support to *intendencias* in their region in the preparation of conservation plans, programs, and projects; resource management issues; research; and information exchange. The DTRs are located in Iguazú (Northeastern), Salta (Northwestern), Buenos Aires (Central) and San Carlos de Bariloche (Patagonia).

5. Personnel. Argentina's national public personnel system makes a distinction between two types of permanent APN personnel: administrative (*Sistema Nacional de la Profesión Administrativa*) and park guards (*Cuerpo Nacional de Guardaparques).* Park guards, responsible for the day-to-day management of the parks, provide the full range of management and protection functions such as nature interpretation, visitor safety, and park security, including armed anti-poaching patrols. In addition, there are a number of

non-permanent categories of employees, namely: contractors (*contractados*), volunteers, and interns (*becarios*).

6. APN staff currently totals about 684, of which 216 are park guards. As a result of the previously mentioned reorganization of APN, there will be a significant increase in both park guards and administrative staff to support a larger presence in both existing and newly created parks (Table F-2). Compensation and career development opportunities will be important issues for retaining park guards and creating a more professional park management staff.

Table F-2. Projected Increase in APN Personnel

Category	1997	1998 (est)	1999 (est)
Executive Appointment	7	7	7
Park Guards	216	320	358
Technical Staff (SINAPA)	60	70	70
Intendencias (SINAPA)	205	326	340
Administration (SINAPA)	75	74	74
Becarios	121	121	121
Total	684	918	970

7. Park Revenues. Table F-3 shows APN's self-generated revenues and treasury transfers over the last six years in 1995 dollars. The self-generated revenues have grown significantly over the past five years (about 19 percent per year). In 1994, the most recent year for which accurate information is available, APN's self-generated revenue, excluding exceptional one-time only sources of income such as sales of assets, was estimated to be US$3.9 million. In that year, one park alone, Iguazú, accounted for approximately 45 percent of total income. The four Patagonian parks proposed for inclusion in the GEF associated Natural Forests and Protected Areas (NFPA) Project loan accounted for an additional 44 percent of the revenue generated in that year.

Table F-3. APN's Total Income (in 1995 US$)

Year	Own Revenue	From Treasury	Total
1990	336,000	4,922,000	5,258,000
1991	1,906,000	6,738,000	8,644,000
1992	2,998,000	7,446,000	10,444,000
1993	5,253,000	14,430,000	19,683,000
1994	5,196,000	16,771,000	21,967,000
1995	8,671,000	15,238,000	23,909,000
1996 (est)	13,500,000	14,500,000	28,000,000
1997 (est)	15,000,000	15,000,000	30,000,000

8. Entrance fees, which are charged in only 11 national parks, make up about 42 percent of APN's self-generated revenue. Depending on the park, other important sources of park revenue include: rental of park properties (9 percent); permits for fishing, hunting and boating (2 percent); pasture fees; royalties associated with forest exploitation in reserves; and licensing of tourist guides and other concessionaires.

9. Operating Budget. Budget cuts suffered by APN during the 1980s and early 1990s combined to limit the Agency's ability to maintain the equipment and infrastructure needed to carry out its mandate to manage existing protected areas. The initially promised 1995 budget of US$27.8 million was a significant increase over the 1994 budget of US$22 million. However, because of new austerity measures demanded of all public institutions, the 1995 budget was later reduced to about US$24 million. Of the total 1994 budget allocation, 56 percent covered salaries of permanent staff, a relatively low proportion in comparison with other Latin American park systems.

10. APN's 1996 projected budget is US$28 million, which has been allocated to the budgetary categories presented in Table F-4. It is noteworthy that the US$6.5 million allocated for land purchase is not fungible because it comes from a special fund earmarked exclusively for this purpose and funded by sales of assets.

Table F-4. APN's 1996 Estimated Budget

Category	Budget Amount (US$)
Salaries	14,500,000
Works	3,000,000
Equipment	2,400,000
Land Purchase	4,500,000
Operations	3,600,000
Total	28,000,000

11. Currently, it is estimated that about 52 percent of the budget is financed by the national treasury, with the remaining 48 percent coming from internally generated funds. This compares with 94 percent financing from the treasury in 1990. The current policy is that treasury funds are used exclusively to cover salaries and benefits of park staff, and that self-generated revenues are used to cover everything else, including investments (and in the case of a Bank loan, the counterpart funding). These park-generated revenues are deposited in an APN account with the *Banco de la Nación* in Buenos Aires. Park operating expenses are then managed through this account by a system of rotating funds and petty cash.

12. Budgeting and Accounting Systems. With the promulgation of the State Reform Law (*Ley Reforma del Estado Nacional*) No. 23,696 of 1989, and the Law of Ministries (*Ley Nacional de Ministerios*) No. 24,190 of 1993, the Agency moved from the Secretariat of Agriculture to the SRNyAH. As part of this transition process, APN has

carried out, and continues to make, major changes in its financial and administrative management systems. As mandated by the Public Sector Financial Administration and Systems Control Reform Law (*Ley Reforma de la Administración Financiera y de los Sistemas de Control del Sector Publico Nacional*) No. 24,156 of 1992, APN is responsible for administering a financial system in compliance with national standards.

13. The national financial administration system for public sector institutions, which has now been adopted by APN, is comprised of standardized budgetary, accounting, auditing, public credit, and treasury systems. The *Ministerio de Economía y Obras y Servicios Públicos* is responsible for the control of these systems, and has prepared procedural manuals and computer programs to standardize the operations across institutions. The new system, controlled by the *Oficina Nacional de Presupuesto* and detailed in a series of standardized operational manuals, now requires the preparation of Annual Operating Plans (POAs), which in the case of APN, is based on the POAs prepared at the level of the *intendencia*. While this budgeting system is now in place in APN's central office, the *intendencias* are still in the process of obtaining necessary software, manuals, and training. In the interim, the current manual system seems to be working satisfactorily.

14. In 1994, the Constitutional Reform Law (*Ley Reforma del Constitución*) mandated that all national public sector institutions adopt a double system of accounting. This consisted of the establishment of an: (a) internal auditing unit *Unidad Auditorio Internal* (UAI) in each agency under the control of the *Sindicatura General de la Nación* (SGN), which is directly responsible to the Office of the President; and (b) external auditing authority under the control of the *Auditoria General de la Nación*, which depends on the National Congress.

15. This system (*Sistema Integrado de Información Financiera*; SIDIF)[15], s now operational at the APN headquarters, but has yet to be installed in the field offices due to the lack of the required equipment, software, modems and operational manuals. As required by law, APN set up a UAI in 1993 for internal auditing of all accounts as well as for technical and legal operations. The UAI, which is composed of three lawyers, three accountants and an engineer, operates on the basis of an Operational Manual, which was issued by the SGN, to which the UAI must send periodic reports.

16. The UAI's 1995 audit of APN identified the following problems that need to be resolved: (i) lack of an inventory of concession obligations; (ii) lack of information on the payments and other obligations of concessionaires (and, hence, the failure to collect all fees); (iii) lack of interaction across APN on methods of concession contracting; (iv) lack of clarity regarding responsibility for concession and permit management; and (v) a general lack of planning.

17. The national treasury system, which is coordinated by the *Tesorería General de la Nación*, is moving towards the required centralization of all public sector revenues and

[15] This system was developed under the World Bank Public Sector Reform Loan (Ln. 3362-AR).

expenses through the establishment of a single account (*caja unica*). This centralization is expected to be completed by the end of 1997, and will result in the elimination of all individual agency accounts including those of APN. This will significantly reduce the level of autonomy of decentralized agencies like APN in that they will no longer have the freedom to manage their own self-generated revenues.

18. APN Policy Priorities in New Protected Areas. The APN has identified three key priority areas for both existing and any new PAs created under its jurisdiction: (i) improved management measures, (ii) training and institutional strengthening for APN staff, and (iii) increasing the number of PAs in order to strengthen the conservation value of the overall system. Priorities within individual protected areas include the following:

(a) provide adequate infrastructure to enable park staff to fulfill their tasks, with particular emphasis on improved physical facilities, and the maintenance and repair of vehicles;

(b) increase the number of vehicles available to support park patrol and enforcement operations;

(c) increase training opportunities in environmental education for park staff;

(d) increase the number of interpretive centers for visitors; and

(e) delimit park boundaries.

19. The APN has also identified the need to improve the management capability of participating institutions, particularly provincial agencies and NGOs, in order to help facilitate coordination and cooperation and promote a more integrated approach to the management of protected areas.

Provincial Protected Area Administration

20. Many of Argentina's provinces can claim a long history in the designation of PAs. The first protected area under provincial jurisdiction was established in Tucumán in 1930. In 1986 the APN began negotiations with all the country's provinces to form a national protected areas system (NPAS). The purpose of this effort was to identify and where appropriate, consolidate the protected areas throughout the country. Additionally, negotiations were designed to promote partnerships between APN and provincial governments in the administration and management of protected areas, particularly where joint management could enhance the biological and ecological objectives of the conservation designation. The APN currently is in various stages of formalizing these agreements with 15 provinces, including San Luis, San Juan, and Santiago del Estero.

21. Many of the provincial governments appear to be committed to identifying important areas for conservation and completing the legal and institutional steps necessary to establish provincial protected areas. Environmental and ecological concerns have been highlighted in both San Luis and San Juan Provinces, and restructuring efforts in both

provinces demonstrate a strong commitment to providing the administrative framework at the ministerial level to establish clear environmental management and conservation programs.

22. The achievement of these objectives is likely to be constrained by scarce human resources. For example, there appear to be few provincial governments in Argentina with the technical capabilities or infrastructure to carry out effective biodiversity conservation initiatives on the ground. Moreover, the agencies responsible for protected area administration and management in virtually all of the provinces are severely under-funded. Many provinces do not have even a single employee with professional training in park management or biological conservation. In those few cases with employees responsible for provincial protected area control and enforcement, there is often little basic logistical support, such as transportation and communication facilities, to carry out assigned tasks. It will be essential under this project to provide resources to the provinces to cover at least the incremental costs associated with the GEF project before any effective activity will be supported.

Legal Process Leading to the Establishment of New Protected Areas

23. The 1981 National Park's Law No. 22.351 (*Regimen Legal de los Parques Nacionales, Monumentos Naturales y Reservas Nacionales - Mensaje y Ley Organica*) established the current legal basis for the creation and management of Argentina's protected areas (PAs) and provided the basic framework for their classification into one of several management categories (Table F-1). To create a new federal PA in provincial territory, the previously cited legislation requires that *a priori*, the dominion and jurisdiction over the land in question be ceded to the Nation. The key steps are:

(a) a formal agreement is signed between the provincial government and APN representing the President of the Republic (*Poder Ejecutivo Nacional*). This agreement recognizes the importance of creating a national protected area in territory under provincial jurisdiction and defines the obligations of both signatories;

(b) the provincial government passes a law which cedes jurisdiction over the concerned lands to the Nation; and

(c) the national government, in turn, passes a law that accepts jurisdiction over the proposed protected area. This law also defines the management category of the area, the national institution responsible for managing the PA including its specific obligations, and provides for the additional operation and maintenance costs associated with the management of the PA. The law has to be approved by the President of the Republic (*Poder Ejecutivo Nacional*).

24. This legal process concludes with the transfer of the property from the province to APN as specified in the registration of the relevant cadastral survey.

25. Where the lands are in private hands, APN provides financial compensation to the landowner at a value determined through an independent appraisal. This process requires an official evaluation, which goes to the National Tax Court (*Tribunal de Tasaciones de la Nación*) and to the land owners. Using this evaluation as a basis, APN, in most cases, negotiates a price directly with the landowner, which is generally the same price stipulated by the official evaluation. On average, this process requires approximately one year to complete but can take longer depending on the number and nature of conflicts involved in the transfer. In the case of national reserves, the lands remain in private ownership but are subject to restrictions based on an approved management plan.

26. While the administrative procedures for PA designation differ among provinces, generally, protected areas are established by the provincial legislature following the drafting and passage of a law that defines the legal boundaries and describes the proposed uses and jurisdiction for the area. Many provinces are now using the same classification system as APN for designating specific protected areas, and some provinces, such as San Luis, are conducting systematic reviews of all existing and proposed protected areas in order to reevaluate the classifications.

27. The APN maintains a small legal staff in Buenos Aires to facilitate and monitor these legal processes. In addition, some *intendencias* of individual parks also have legal experts on their staffs.

ANNEX G: INCREMENTAL COSTS AND GLOBAL ENVIRONMENTAL BENEFITS

A. Context and Broad Development Goals

1. Over-exploitation of Argentina's biological resources is proceeding at an alarming rate. In the last century, it is estimated that Argentina has lost more than two thirds of its original forest cover; the existing loss rate is estimated at 160,000 hectares per year. The loss of non-forested habitat is also significant, due to land conversion for agricultural purposes; in addition, erosion in some areas is increasing, attributable primarily to overgrazing by sheep and cattle. While the existing system of protected areas is extensive in comparison to other countries in Latin America, a recent National Parks Administration (APN) analysis estimated that less than 21 percent of the total area under protection is acceptably managed. Moreover, the existing National Protected Areas System (NPAS) does not equitably represent many of the country's ecoregions considered to be of international significance in terms of their biodiversity.

2. The GOA recognizes the importance of the country's biological endowment and the need to conserve and use these natural resources in a sustainable manner. To assist GOA evaluate development options and priorities, APN, in collaboration with other public sector agencies, the academic community, NGOs, and the private sector, is in the process of formulating a national biodiversity strategy with UNDP/GEF support. Although the details of the strategy remain to be elaborated, key elements already emerging include the need to: strengthen and extend the protected area system; increase national and local capacity in natural resource management (in both forested and non-forested areas); and promote greater public participation in sustainable natural resource management. The Baseline Scenario and GEF Alternative have been developed within this evolving policy context.

B. Baseline Scenario

3. Under the Baseline Scenario, it is expected that the GOA would begin to implement the priorities identified in the National Biodiversity Strategy. Within that framework, priority would be given to activities that generate national economic benefits deriving from sustainable use of the country's native forest resources and modern management of its protected areas system. Efforts to expand the NPAS to include under-represented, globally significant areas would also be initiated. This Baseline Scenario would translate into two primary operational programs/emphases: ***Native Forests***, including (a) development of an incentive and regulatory framework to encourage sustainable use of native forest resources (US$ 1.0 million); (b) development of the information tools (inventories, database, etc.) to facilitate sustainable management of the native forest resource over the long term (US$ 8.5 million); and (c) applied research on improved management and conservation of native forests (US$ 5.6 million); and ***Protected Areas,*** including (d) modernization and strengthening of APN's system for managing the NPAS (US$ 3.4 million); (e) investments in selected national parks capable of attracting national and international tourism (US$ 11.6 million); and (f) initial expansion of the

NPAS to include sites of global significance (US$ 11.1 million). The combined cost of this Native Forests/Protected Areas Baseline Scenario is estimated at US$ 41.2 million.

4. Implementation of the Baseline Scenario would permit GOA to address native forest management issues in a comprehensive and coherent manner, building partnerships with the private sector and in the provinces. Improvement in the management of the protected areas system, development of visitor infrastructure at selected sites, and formulation of tourism strategies would increase opportunities for cost-recovery and revenue-earning activities in local communities without threatening ecosystem stability. The expansion of the NPAS to five under-represented ecosystems (Andean Puna, Pampas grasslands, semi-arid Chaco, Cordoba montane savannas, Patagonian Steppe) would lay the basis for conservation and protection of globally significant biodiversity in Argentina. However, implementation of the Baseline Scenario would only cover basic establishment costs at these new parks (land acquisition, compensation arrangements, and a minimal staff presence), and would not be sufficient to assure the institutional/management capacity and full public participation which is necessary for effective, long-term conservation.

C. Global Environmental Objective

5. The global environmental objective of the GEF Alternative would be to ensure the effective, long-term conservation of biodiversity of global importance in four categories of ecosystems in Argentina: arid and semi-arid ecosystems (the Pampas, the Puna, and the Patagonian Steppes); forest ecosystems (Córdoba montane savannas and the Chaco); mountain ecosystems (the Puna), and coastal, marine, and freshwater ecosystems (Patagonian Steppe and littoral and wetland Patagonian habitats). The sites selected for protection are characterized by high endemism, pristine habitats, and in some cases, existence of threats from alternative economic development. Populations of threatened mammals (Pampas Deer, Jaguar, Giant Anteater, Giant Armadillo, pinnipeds, camelids) and birds (condors, seabirds) are considered outstanding and of global significance (see Annex 2).

D. GEF Alternative

6. Under the GEF Alternative, the GOA would be able to undertake an ambitious program encompassing both national and global benefits. The GEF alternative would comprise the already described Baseline Scenario (i.e., native forest management, modernization of the NPAS, establishment of new sites), **as well as** an expanded conservation and sustainable use program to promote the integrity and long-term conservation of the selected ecoregions of global interest. Activities included under the two primary operational programs would be modified as follows to achieve the global objective of protecting these unique biological resources: ***Native Forest*** (activities same as Baseline, cost: US$15.1 million); ***Protected Areas:*** (a) modernization and strengthening of APN's system for managing the NPAS (US$ 3.4 million); (b) investments in selected national parks capable of attracting national and international tourism (activities same as Baseline, cost: US$11.6 million); (c) investments in selected parks of global significance (US$ 21.6 million); this would include establishment costs (as per the Baseline Scenario) as well as sustainable management arrangements, buffer zone activities, public participation, training, and monitoring and evaluation (M&E); and (d) creation

of a national biodiversity network (US$0.7 million). The cost of the GEF Alternative is estimated at US$51.7 million.

7. Implementation of the GEF Alternative would make possible activities and programs that would not have been possible under the Baseline Scenario, thus covering important gaps that would otherwise threaten the integrity of the proposed protected areas. While both the Baseline Scenario and the GEF Alternative would expand and diversify the country's existing NPAS by including internationally-significant ecoregions, only the latter option would ensure their long-term conservation and protection through strengthened on-site management, outreach to and involvement of local communities and local governments, and development of viable approaches to natural resource use in park buffer zones. The creation of a national biodiversity network would facilitate informed decision-making and permit improved monitoring of impacts and trends over the long-term.

E. Incremental Costs

8. The difference between the cost of the Baseline Scenario (US$ 41.2 million) and the GEF Alternative (US$ 51.7 million) is estimated at US$10.5 million. Of this amount, it is estimated that about US$400,000 would generate national benefits, mainly from investments in sustainable productive activities in the buffer zones of the protected areas, which would not have taken place under the Baseline Scenario. Because the beneficiaries would cover the cost associated with achieving these additional national benefits, the incremental cost of achieving global environmental benefits (protecting unique biodiversity in five selected parks) under the GEF Alternative is estimated at US$10.1 million.

ANNEX H: PROJECT COSTS

Argentina
BIODIVERSITY CONSERVATION PROJECT
Expenditure Accounts by Components - Totals Including Contingencies
(US$)

	Protected Areas			Information Management	Management, Monitoring and Evaluation	
	Establishment of New Protected Areas	Sustainable Development Activities	Participation	Information System	Project Unit	Total
I. Investment Costs						
A. Land /a						
1. Land Purchase	6,534,473	-	-	-	-	6,534,473
B. Works						
1. Civil Works	2,685,951	-	-	-	-	2,685,951
2. Road and Trails	783,636.8	-	-	-	-	783,636.8
3. Other Works	335,733.4	-	-	-	-	335,733.4
Subtotal Works	3,805,321	-	-	-	-	3,805,321
C. Goods						
1. Machinery and Equipment	695,564.5	-	-	129,121.3	16,706.3	841,392.0
2. Vehicles	722,321.8	-	-	-	-	722,321.8
Subtotal Goods	1,417,888	-	-	129,121.3	16,706.3	1,563,716
D. Services /b						
1. Environmental Studies	158,362.2	-	-	-	-	158,362.2
2. Training	-	-	518,052.7	86,970.9	-	605,023.6
3. Other Technical Assistant	1,268,086	111,931.1	297,061.2	267,583.0	489,970.8	2,434,632
Subtotal Services	1,426,448	111,931.1	815,113.9	354,553.9	489,970.8	3,198,018
Total Investment Costs	13,184,130	111,931.1	815,113.9	483,675.2	506,677.1	15,101,527
II. Recurrent Costs						
A. Buffer Zone Activities	-	867,899.3	-	-	-	867,899.3
C. Beneficiary Counterpart	-	415,545.5	-	-	-	415,545.5
D. Social Impact Mitigation Plan APN /c	-	-	874,591.9	-	-	874,591.9
E. APN Contracted Personnel	1,924,291	-	-	125,719.2	76,695.0	2,126,705
F. Operating	1,501,452	110,289.5	30,369.6	44,701.9	37,435.1	1,724,248
G. Materials and Supplies	137,356.1	-	-	-	-	137,356.1
H. Office Operations - APN	-	-	-	-	29,304.0	29,304.0
I. Consultative Commissions Operating Costs	-	-	144,813.5	-	-	144,813.5
K. Services Contracting	166,438.7	-	-	-	-	166,438.7
Total Recurrent Costs	1,729,517	1,393,734	1,049,775	170,421.1	141,414.0	6,486,902
Total PROJECT COSTS	16,913,667	1,505,665	1,864,889	654,096.3	650,111.1	21,588,429
Taxes	2,432,240	115,393.1	619,468.0	124,109.1	64,375.0	3,355,585
Foreign Exchange	2,214,450	195,464.9	175,493.6	279,137.1	37,013.6	2,901,559

\a Land cost, including measurent and titling.
\b Including: Fees, perdiem, travel and other task related expenses.
\c Including: Fire Brigate (ex pobladores) and Baqueanos Salaries and other expenses.

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Argentina
BIODIVERSITY CONSERVATION PROJECT
Project Cost Summary

	(US$)			(US$)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
1. Establishment of New Protected Areas	13,861,052	2,006,638	15,867,690	13,861,052	2,006,638	15,867,690	13	7
2. Sustainable Development Activities	1,247,880	185,720.0	1,433,600	1,247,880	185,720.0	1,433,600	13	7
3. Participation	1,590,820	165,700.0	1,756,520	1,590,820	165,700.0	1,756,520	9	8
Subtotal Protected Areas	16,699,752	2,358,058	19,057,810	16,699,752	2,358,058	19,057,810	12	94
B. Information Management								
1. Information System	355,770.0	266,030.0	621,800.0	355,770.0	266,030.0	621,800.0	43	3
Subtotal Information Management	355,770.0	266,030.0	621,800.0	355,770.0	266,030.0	621,800.0	43	3
C. Management, Monitoring and Evaluation								
1. Project Unit	575,220.0	34,430.0	609,650.0	575,220.0	34,430.0	609,650.0	6	3
Subtotal Management, Monitoring and Evaluation	575,220.0	34,430.0	609,650.0	575,220.0	34,430.0	609,650.0	6	3
Total BASELINE COSTS	17,630,742	2,658,518	20,289,260	17,630,742	2,658,518	20,289,260	13	100
Physical Contingencies	302,980.2	103,258.8	406,239.0	302,980.2	103,258.8	406,239.0	25	2
Price Contingencies	751,147.7	119,782.6	892,930.2	751,147.7	119,782.6	892,930.2	16	4
Total PROJECT COSTS	18,686,870	2,901,559	21,588,429	18,686,870	2,901,559	21,588,429	13	106

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Argentina
BIODIVERSITY CONSERVATION PROJECT
Table 105. PROTECTED AREA ESTABLESHMENT & MANAGEMENT - Los Venados
Detailed Costs
(US$)

	Totals Including Contingencies					
	1998	1999	2000	2001	2002	Total
I. Investment Costs						
A. Compra de Tierras						
Compra de Tierra	3,402,000	-	-	-	-	3,402,000
B. Obras Civiles						
Construcción 1 Puesto de Control	22,553.4	-	-	-	-	22,553.4
Construcción 1 Vivienda /a	40,095.0	-	-	-	-	40,095.0
Refacción Viviendas /b	-	-	119,208.0	-	-	119,208.0
Construcción Centro de Investigación/Vivienda /c	-	-	94,888.5	-	-	94,888.5
Construcción Oficina/Vivienda y Centro de Recepción /d	-	-	94,888.5	-	-	94,888.5
Subtotal Obras Civiles	62,648.4	-	308,985.0	-	-	371,633.4
C. Caminos y Senderos						
Reparación de Caminos	-	-	322,138.5	-	-	322,138.5
Senderos Interpretativos	-	17,130.2	-	-	-	17,130.2
Subtotal Caminos y Senderos	-	17,130.2	322,138.5	-	-	339,268.7
D. Instalaciones						
Alamorados	-	-	20,616.9	-	-	20,616.9
Torres de Vigilancia	-	2,855.0	-	-	-	2,855.0
Subtotal Instalaciones	-	2,855.0	20,616.9	-	-	23,471.9
E. Maquinarias y Equipos						
Tractor	-	-	52,683.8	-	-	52,683.8
Kit de Computación	3,898.1	-	4,097.6	-	-	7,995.8
Kit de Muebles	3,341.3	-	7,024.5	7,202.6	-	17,568.4
Kit de Comunicación /e	6,682.5	-	-	-	-	6,682.5
Fotocopiadora	-	-	1,404.9	-	-	1,404.9
Telefonos/Fax	891.0	-	936.6	-	-	1,827.6
Kit Audiovisual /f	-	-	7,024.5	-	-	7,024.5
Paneles Interpretación	-	-	7,024.5	-	-	7,024.5
Implementos Agricolas /g	-	-	9,366.0	-	-	9,366.0
Equipos para Incendios /h	-	3,425.4	-	-	-	3,425.4
Estaciones Meteorológicas	-	-	1,756.1	-	-	1,756.1
Equipos de Campaña /i	1,559.3	-	1,639.1	840.3	-	4,038.6
Grupos Solares	4,009.5	4,110.5	8,429.4	-	-	16,549.4
Subtotal Maquinarias y Equipos	20,381.6	7,535.9	101,387.0	8,043.0	-	137,347.5
F. Vehiculos						
Camionetas	33,412.5	-	70,245.1	-	-	103,657.6
Motos Todo Terreno	-	-	4,789.4	-	-	4,789.4
Caballos	1,620.0	1,660.8	-	-	-	3,280.8
Subtotal Vehiculos	35,032.5	1,660.8	75,034.5	-	-	111,727.8
G. Asistencia Técnica						
Programa de Asistencia Técnica Local	-	3,634.1	14,914.5	15,302.3	15,692.4	49,543.3
Programa de Asistencia Técnica Nacional	-	3,634.1	3,728.6	3,825.6	3,923.1	15,111.4
Programa de Cooperación Institucional Local	14,175.0	14,536.6	14,914.5	15,302.3	15,692.4	74,620.7
Programa de Cooperación Institucional Nacional	-	9,085.3	9,321.6	9,563.9	9,807.7	37,778.6
Estudio/informe de Impacto Ambiental /j	-	-	10,653.2	5,465.1	5,604.4	21,722.7
Asistencia Delegación Técnica Regional APN /k	3,543.8	14,536.6	14,914.5	15,302.3	15,692.4	63,989.5
Subtotal Asistencia Técnica	17,718.8	45,426.7	68,446.9	64,761.4	66,412.4	262,766.2
Total Investment Costs	3,537,781	74,608.6	896,608.8	72,804.4	66,412.4	4,648,215
II. Recurrent Costs						
A. Personal Contratado APN						
Intendente	-	15,571.0	31,936.2	32,750.6	33,577.4	113,835.2
Guardaparque	21,870.0	22,422.3	45,988.1	47,160.8	48,351.5	185,792.7
Administrativo	-	14,948.2	15,329.4	15,720.1	16,117.2	62,115.0
Subtotal Personal Contratado APN	21,870.0	52,941.5	93,253.7	95,631.7	98,046.1	361,742.9
B. Movilidad						
Movilidad Vehiculos	8,100.0	16,611.1	25,558.1	26,216.1	26,881.1	103,366.3
Viaticos APN	1,822.5	2,242.5	3,450.3	3,539.2	3,628.9	14,683.5
Viaticos APN	2,278.1	4,671.9	4,792.1	4,915.5	5,040.2	21,697.9
Otros Viaticos	-	11,771.1	12,276.2	8,258.1	8,467.5	40,574.9
Subtotal Movilidad	12,200.6	35,298.6	45,876.8	42,928.8	44,017.8	180,322.6
C. Operación Mantenimiento y Suministros						
Mantenimiento de Vehiculos	-	-	-	5,461.7	5,600.2	11,061.9
Mant. Edif. Instal. Caminos y Equipos	-	-	8,519.4	8,738.7	8,960.4	26,218.4
Teléfono	2,430.0	4,983.3	5,111.6	5,243.2	5,376.2	23,144.4
Luz, Gas y Agua	2,025.0	6,229.2	10,649.2	10,923.4	11,200.5	41,027.2
Papeleria y Utiles	4,556.3	6,229.2	6,389.5	6,554.0	6,720.3	30,449.2
Material Técnico /l	1,518.8	1,557.1	1,597.4	1,638.5	1,680.1	7,992.0
Subtotal Operación Mantenimiento y Suministros	10,530.0	18,998.9	32,267.1	38,559.4	39,537.6	139,893.1
D. Servicios Contratados						
Servicios de Edicion	2,531.3	2,595.5	2,662.3	2,730.8	2,800.1	13,320.0
Servicios de Limpieza	1,822.5	3,717.5	5,750.6	5,898.6	6,048.2	23,257.4
Subtotal Servicios Contratados	4,353.8	6,313.0	8,412.9	8,629.5	8,848.4	36,577.4
Total Recurrent Costs	48,954.4	111,572.0	179,810.4	185,749.4	190,449.8	718,536.0
Total	3,586,736	188,180.6	1,076,419	258,553.7	256,862.3	5,366,751

\a Construcción de una vivenda para Guardaparque.
\b Refacción de las vivendas para un Guardaparque y para cuatro Baqueanos.
\c Construcción de oficina y vivienda para los grupo de investigación.
\d Construcción de oficina Centro de Recepción y vivienda para el Intendente en Villa Mercedes.
\e Incluye 3 bases y cinco radios moviles.
\f Incluye: cámara de video, cámara fotográfica, TV, video registradora, retroproyector y proyector de diapositivas.
\g Incluye: rastra, niveladora, y otras herramientas.
\h Incluye: acoplado, tanque de agua y bomba.
\i Incluye: carpas, bolsas de dormir, mochilas etc..
\j Estudio e informe de impacto ambiental de las inversiones financiadas por el GEF.
\k Incluye Viajes y Viáticos por 30 días.
\l Incluye: bibliografia, imagenes satelitarias, software, etc..

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Argentina
BIODIVERSITY CONSERVATION PROJECT
Table 102. PROTECTED AREA ESTABLISHMENT & MANAGEMENT - San Guillermo
Detailed Costs
(US$)

	Totals Including Contingencies					
	1998	1999	2000	2001	2002	Total
I. Investment Costs						
A. Compra de Tierras						
Compra de Tierras	189,337.5	-	-	-	-	189,337.5
B. Obras Civiles						
Construcción Viviendas /a	74,844.0	76,744.4	-	-	-	151,588.4
Construcción Oficina/Centro Recepción e Interpretación /b	155,925.0	-	-	-	-	155,925.0
Refacción Vivienda Intendente /c	49,896.0	-	-	-	-	49,896.0
Construcción Vivienda/Oficina /d	269,527.5	-	-	-	-	269,527.5
Construcción Albergue Visitantes /e	-	77,658.0	-	-	-	77,658.0
Refacción Destacamentos Fijos /f	-	11,704.4	-	-	-	11,704.4
Subtotal Obras Civiles	550,192.5	168,106.7	-	-	-	718,299.2
C. Caminos y Senderos						
Reparación de Caminos /g	155,925.0	68,520.8	-	-	-	224,445.8
Senderos Interpretativos /h	-	7,994.1	-	-	-	7,994.1
Subtotal Caminos y Senderos	155,925.0	76,514.9	-	-	-	232,439.9
D. Instalaciones						
Galpón para Maquinas y Vehículos /i	-	16,544.4	-	-	-	16,544.4
Galpón para Maquinas y Vehículos /j	-	74,230.8	-	-	-	74,230.8
Destacamentos Moviles /k	-	14,260.4	-	-	-	14,260.4
Subtotal Instalaciones	-	145,035.6	-	-	-	145,035.6
E. Maquinarias y Equipos						
Kit de Computación	7,796.3	-	-	-	-	7,796.3
Kit de Muebles	13,365.0	6,850.8	3,512.3	-	-	23,728.0
Kit de Comunicación /l	13,365.0	-	-	-	-	13,365.0
Fotocopiadora	1,336.5	-	-	-	-	1,336.5
Telefonos/Fax	891.0	-	-	-	-	891.0
Kit Instrumental Técnico	11,137.5	-	-	-	-	11,137.5
Kit Audiovisual /m	6,682.5	6,850.8	-	-	-	13,533.3
Paneles Interpretación	6,682.5	6,850.8	-	-	-	13,533.3
Estaciones Meteorológicas	-	1,712.7	-	-	-	1,712.7
Equipos de Campaña de Alta Montaña /n	-	4,110.5	4,214.7	2,881.1	-	11,206.2
Grupos Solares	12,028.5	-	-	-	-	12,028.5
Tanques para Combustible /o	-	5,709.0	-	-	-	5,709.0
Grupo Electrogeno 6 Kva.	-	4,567.2	-	-	-	4,567.2
Herramientas para Taller y Vehículos /p	-	12,126.9	-	-	-	12,126.9
Subtotal Maquinarias y Equipos	73,284.8	53,778.6	7,727.0	2,881.1	-	137,671.4
F. Vehiculos						
Camionetas	13,412.5	14,253.9	-	-	-	67,666.4
Jeep 6 Personas	-	124,559.6	-	-	-	124,559.6
Moto 4 Ruedas	-	-	14,900.5	-	-	14,900.5
Caballos /q	-	-	2,554.4	4,365.2	-	6,919.6
Subtotal Vehiculos	33,412.5	158,813.5	17,454.8	4,365.2	-	214,046.0
G. Asistencia Técnica						
Programa Asistencia Técnica Local	7,087.5	14,536.6	14,914.5	15,302.3	15,692.4	67,533.2
Programa Asistencia Técnica Nacional	-	5,451.2	5,592.9	5,738.4	5,884.6	22,667.1
Programa de Cooperación Institucional Local	14,175.0	14,536.6	14,914.5	15,302.3	15,692.4	74,620.7
Programa de Cooperación Institucional Nacional	-	9,085.3	9,321.6	9,563.9	9,807.7	37,778.6
Estudio/informe de Impacto Ambiental /r	15,187.5	15,574.9	5,326.6	-	-	36,089.0
Asistencia a Delegación Técnica /s	5,315.6	15,151.6	16,778.8	17,215.1	17,651.9	71,117.1
Subtotal Asistencia Técnica	41,765.6	74,516.1	66,848.9	61,121.9	64,731.1	310,005.7
Total Investment Costs	1,043,918	677,787.4	92,030.7	70,368.2	64,731.1	1,948,835
II. Recurrent Costs						
A. Personal Contratado APN						
Intendente	-	15,571.0	31,936.2	32,750.6	33,577.4	113,835.2
Guardaparques	21,870.0	22,422.1	45,988.1	47,160.8	48,351.5	185,792.7
Baqueanos	7,290.0	7,474.1	15,329.4	15,720.1	16,117.2	61,930.9
Administrativo	-	14,948.2	15,329.4	15,720.1	16,117.2	62,115.0
Subtotal Personal Contratado APN	29,160.0	60,415.6	108,583.0	111,351.9	114,163.3	423,673.9
B. Movilidad						
Movilidad Vehiculos	7,290.0	37,375.0	38,337.1	39,324.1	40,321.6	162,647.8
Viaticos APN	2,733.8	5,606.2	9,584.3	9,831.0	10,080.4	37,835.7
Viaticos APN	4,556.3	7,297.8	9,584.3	9,831.0	10,080.4	41,059.8
Otros Viaticos	11,481.8	11,773.1	8,050.8	8,258.1	9,467.5	48,031.3
Subtotal Movilidad	26,061.8	61,762.1	65,556.5	67,244.2	68,950.0	289,574.6
C. Operación Mantenimiento y Suministros						
Mantenimiento de Vehículos	-	-	-	8,738.7	8,960.4	17,699.0
Mant. Edif. Instal. Caminos y Equipos	-	-	-	54,616.8	56,002.3	110,619.0
Teléfono	-	-	2,555.8	2,621.6	2,688.1	7,865.5
Luz, Gas y Agua	-	-	2,129.8	6,554.0	11,200.5	19,884.3
Papeleria y Utiles	-	-	3,194.8	6,554.0	6,720.3	16,469.0
Material Técnico /t	-	-	-	-	-	-
Subtotal Operación Mantenimiento y Suministros	2,025.0	2,276.4	10,010.1	81,269.8	87,811.5	183,193.0
D. Servicios Contratados						
Servicios de Edición	2,531.3	2,595.5	2,662.3	2,730.8	2,800.1	13,320.0
Servicios de Limpieza	-	1,858.7	1,916.9	1,932.4	6,048.2	11,756.1
Subtotal Servicios Contratados	2,531.3	4,454.2	4,579.3	4,663.2	8,848.4	25,076.2
Total Recurrent Costs	59,778.0	128,908.4	188,729.0	266,529.2	279,773.2	921,527.6
Total	1,103,696	806,695.8	280,759.7	336,897.3	344,504.3	2,872,363

\a Construcción dos viviendas para Guardaparques en el Rodeo.
\b Construcción en el Rodeo.
\c Refacción en el Rodeo.
\d Construcción en Agua del Godo.
\e Construcción en área del Parque.
\f Refacción de dos Destacamentos en el área del Parque.
\g Incluye la construcción de 3 badenes.
\h *Incluye miradores.*
\i Construcción de un galpón en el Rodeo.
\j Construcción de un galpón en el área del Parque.
\k Dos casas rodantes para el área del Parque.
\l Incluye 2 bases y cinco radios moviles.
\m Incluye: cámara de video, cámara fotográfica, TV, video registradora, retroproyector y proyector de diapositivas.
\n Incluye: carpas, bolsas de dormir, mochilas etc..
\o Incluye ecoplados.
\p Incluye: soldadora, compresor y otras herramientas y equipos.
\q Incluye los aperos
\r Estudio e informe de impacto ambiental de las inversiones financiadas por el GEF.
\s *Incluye viajes y viáticos por 30 días.*
\t Incluye: bibliografía, imagenes satelitarias, software, etc..

Argentina
BIODIVERSITY CONSERVATION PROJECT
Table 10). PROTECTED AREA ESTABLISHMENT & MANAGEMENT - Copo
Detailed Costs
(US$)

	Totals Including Contingencies					
	1998	1999	2000	2001	2002	Total
I. Investment Costs						
A. Obras Civiles						
Construcción Viviendas /a	110,261.3	-	-	-	-	110,261.3
Refacción Vivienda /b	21,250.4	-	-	-	-	21,250.4
Construcción Oficina/Vivienda /c	-	92,504.4	42,172.7	-	-	134,677.0
Centro de Recepción e Interpretación /d	-	123,339.2	-	-	-	123,339.2
Construcción de Alberque para Investigadores	-	92,504.4	-	-	-	92,504.4
Subtotal Obras Civiles	131,511.6	308,347.9	42,172.7	-	-	482,032.2
B. Caminos y Senderos						
Reparación de Caminos	-	22,840.3	-	-	-	22,840.3
Senderos Interpretativos	-	11,420.1	-	-	-	11,420.1
Subtotal Caminos y Senderos	-	34,260.4	-	-	-	34,260.4
C. Instalaciones						
Alambrados	-	37,686.4	-	-	-	37,686.4
Caballerizas	-	2,284.0	-	-	-	2,284.0
Galpones para Maquinas y Vehículos	-	28,550.3	-	-	-	28,550.3
Destacamento Movil /e	16,706.1	-	-	-	-	16,706.1
Subtotal Instalaciones	16,706.1	68,520.8	-	-	-	85,227.0
D. Maquinarias y Equipos						
Tractor	-	-	52,683.8	-	-	52,683.8
Kit de Computación	-	1,996.1	-	-	-	1,996.1
Kit de Muebles	6,682.5	6,850.8	7,024.5	-	-	20,557.8
Kit de Comunicación	6,682.5	-	-	-	-	6,682.5
Fotocopiadora	-	-	1,404.9	-	-	1,404.9
Telefonos/Fax	-	913.4	-	-	-	913.4
Kit Audiovisual /f	-	6,850.8	7,024.5	-	-	13,875.3
Paneles Interpretación	-	6,850.8	7,024.5	-	-	13,875.3
Implementos Agricolas /g	-	-	9,366.0	-	-	9,366.0
Equipo para Incendios	-	-	5,853.8	-	-	5,853.8
Equipo para Transporte de Agua /h	-	-	3,512.3	-	-	3,512.3
Estaciones Metereológicas	-	1,712.7	-	-	-	1,712.7
Equipos de Campaña /i	-	799.3	1,639.1	1,680.6	-	4,118.9
Grupos Solares	4,009.5	4,110.5	-	-	-	8,120.0
Grupos Electrogenos 3 Kva	1,116.5	1,170.2	-	-	-	2,286.7
Subtotal Maquinarias y Equipos	18,711.0	33,454.6	95,533.3	1,680.6	-	149,379.5
E. Vehiculos						
Camionetas	-	68,507.8	35,122.5	-	-	103,630.3
Motos	-	9,342.0	-	-	-	9,342.0
Caballos /j	-	1,660.8	1,702.9	-	-	3,363.7
Subtotal Vehiculos	-	79,510.5	36,825.4	-	-	116,336.0
F. Asistencia Técnica						
Programa de Asistencia Técnica Local	-	14,536.6	14,914.5	15,302.3	15,692.4	60,445.7
Programa de Asistencia Técnica Nacional	-	5,451.2	5,592.9	5,738.4	5,884.6	22,667.1
Programa de Cooperación Institucional Local	-	14,536.6	14,914.5	15,302.3	15,692.4	60,445.7
Programa de Cooperación Institucional Nacional	-	9,085.3	9,321.6	9,563.9	9,807.7	37,778.6
Estudio/informe de Impacto Ambiental /k	-	15,574.9	15,979.8	5,465.1	-	37,019.8
Asistencia a Delegación Técnica /l	10,631.1	10,904.8	16,778.8	17,215.1	17,653.9	84,083.9
Subtotal Asistencia Técnica	10,631.1	70,989.1	77,502.1	68,587.0	64,731.1	302,440.8
Total Investment Costs	177,560.1	605,083.6	252,033.5	70,267.6	64,731.1	1,169,675
II. Recurrent Costs						
A. Personal Contratado APN						
Intendente	-	-	15,968.1	32,750.6	33,577.4	82,296.1
Guardaparques	21,870.0	44,844.6	45,988.1	47,160.8	48,351.5	208,215.0
Administrativo —	-	-	15,329.4	15,720.3	16,117.2	47,166.8
Subtotal Personal Contratado APN	21,870.0	44,844.6	77,285.6	95,631.7	98,046.1	337,677.9
B. Movilidad						
Movilidad Vehiculos	-	13,288.9	20,446.5	20,972.8	21,504.9	76,213.1
Viaticos APN	-	2,803.1	5,750.6	5,898.6	6,048.2	20,500.6
Viaticos APN	-	4,671.9	9,584.3	9,831.0	10,080.4	34,167.6
Otros Viaticos	-	11,773.1	12,076.2	9,258.1	9,467.5	40,574.9
Subtotal Movilidad	-	32,537.0	47,857.5	44,960.5	46,101.1	171,456.1
C. Operación Mantenimiento y Suministros						
Mantenimiento de Vehiculos	-	-	-	5,461.7	5,600.2	11,061.9
Mant. Edif. Instal. Caminos y Equipos	-	-	8,519.4	8,738.7	8,960.4	26,218.4
Teléfono	-	2,491.7	2,555.8	2,621.6	2,688.1	10,357.2
Luz, Gas y Agua	-	2,076.4	6,389.5	10,923.4	11,200.5	30,589.7
Papelería y Utiles	-	1,114.6	6,389.5	6,554.0	6,720.3	22,778.4
Material Técnico /m	2,025.0	2,076.4	2,129.8	2,184.7	2,240.1	10,656.0
Subtotal Operación Mantenimiento y Suministros	2,025.0	9,759.0	25,984.1	36,484.0	37,409.5	111,661.6
D. Servicios Contratados						
Servicios de Edición	2,531.3	2,595.5	2,662.3	2,730.8	2,800.1	13,320.0
Servicios de Limpieza	-	1,868.7	1,833.7	1,898.6	1,948.2	7,649.1
Subtotal Servicios Contratados	2,531.1	4,464.2	4,496.0	4,629.5	4,748.4	20,969.1
Total Recurrent Costs	26,426.1	91,604.8	157,623.2	185,705.7	190,405.0	651,764.9
Total	203,986.4	696,688.4	409,656.7	255,973.3	255,136.1	1,821,441

\a Construcción de viviendas para los dos Guardaparques y para un Baqueano.
\b Refacción de una vivienda para Baqueano
\c Incluye: una vivienda del Intendente, oficina administrativa de APN en Pampa de los Guanacos y una oficina en área núcleo.
\d Centro de Recepción e Interpretación APN/Provincia en Pampa de los Guanacos.
\e Casa Rodante para cuatro personas.
\f Incluye: cámara de video, cámara fotográfica, TV, video registradora, retroproyector y proyector de diapositivas.
\g Incluye: rastra, niveladora, y otras herramientas.
\h Incluye: acoplado, tanque de agua y bomba.
\i Incluye: carpas, bolsas de dormir, mochilas etc..
\j Incluye los aperos
\k Estudio e informe de impacto ambiental de las inversiones financiadas por el GEF.
\l Incluye Viajes y Viáticos por 30 días.
\m Incluye: bibliografía, imagenes satelitarias, software, etc..

Argentina
BIODIVERSITY CONSERVATION PROJECT
Table 104. PROTECTED AREA ESTABLISHMENT & MANAGEMENT - Monte Leon
Detailed Costs
(US$)

	Totals Including Contingencies					
	1998	1999	2000	2001	2002	Total
I. Investment Costs						
A. Compra de Tierras						
Compra de Tierra	77,253.8	-	-	-	-	77,253.8
B. Obras Civiles						
Construcción de viviendas /a	-	97,072.5	79,659.5	-	-	176,732.0
Construcción de viviendas /b	-	135,901.5	-	-	-	135,901.5
Construcción Oficina Administrativa /c	-	36,316.5	-	-	-	36,316.5
Construcción Centro de Recepción e Interpretación /d	-	-	149,361.5	-	-	149,361.5
Construcción de Destacamentos /e	-	-	121,003.6	-	-	121,003.6
Construcción de Resguardo /f	-	-	41,929.9	-	-	41,929.9
Subtotal Obras Civiles	-	269,290.5	395,954.4	-	-	665,244.9
C. Caminos y Senderos						
Reparación de Caminos	-	-	117,141.3	-	-	117,141.3
Senderos Interpretativos	-	2,284.0	-	-	-	2,284.0
Subtotal Caminos y Senderos	-	2,284.0	117,141.3	-	-	119,425.3
D. Instalaciones						
Miradores Protegidos /g	-	-	21,085.4	-	-	21,085.4
Construcción Galpón /h	-	-	46,856.5	-	-	46,856.5
Perforación y Bombas de agua /i	-	-	8,199.9	-	-	8,199.9
Reservorios de Gas /j	-	-	5,857.1	-	-	5,857.1
Subtotal Instalaciones	-	-	81,998.9	-	-	81,998.9
E. Maquinarias y Equipos						
Kit de Computacion	3,898.1	-	-	-	-	3,898.1
Kit de Muebles	3,341.3	10,276.2	10,536.8	7,202.6	-	31,356.8
Kit de Comunicación /k	6,682.5	-	-	-	-	6,682.5
Fotocopiadora	1,336.5	-	-	-	-	1,336.5
Telefonos/Fax	891.0	-	-	-	-	891.0
Kit Audiovisual /l	-	-	7,024.5	-	-	7,024.5
Paneles Interpretación	-	-	7,024.5	-	-	7,024.5
Equipos para Incendios /m	-	-	3,512.3	-	-	3,512.3
Estaciones Meteorológicas	-	-	1,756.1	-	-	1,756.1
Grupos Solares	-	-	16,858.8	-	-	16,858.8
Generadores de Electricidad - 6 Kva	-	-	4,683.0	-	-	4,683.0
Aerogeneradores /n	-	-	18,732.0	-	-	18,732.0
Herramientas para Taller	-	-	9,366.0	-	-	9,366.0
Subtotal Maquinarias y Equipos	16,149.4	10,276.2	79,494.0	7,202.6	-	113,122.2
F. Vehiculos						
Camionetas	33,412.5	34,253.9	35,122.5	-	-	102,788.9
Camion 2500 Kilos	-	-	47,894.4	-	-	47,894.4
Moto Todo Terreno	-	-	4,789.4	-	-	4,789.4
Caballos	-	-	1,277.2	-	-	1,277.2
Gomon con 2 Motores Fuera de Borda	-	-	12,771.8	-	-	12,771.8
Subtotal Vehiculos	33,412.5	34,253.9	101,855.3	-	-	169,521.7
G. Asistencia Técnica						
Programa de Asistencia Técnica Local	-	7,268.3	11,185.9	11,476.7	11,769.3	41,700.1
Programa de Asistencia Técnica Nacional	-	7,268.3	3,728.6	3,825.6	3,923.1	18,745.6
Programa de Cooperación Institucional Local	-	14,536.6	14,914.5	15,302.3	15,692.4	60,445.7
Programa de Cooperación Institucional Nacional	-	9,085.3	9,321.6	9,563.9	9,807.7	37,778.6
Estudio/informe de Impacto Ambiental /o	-	15,574.9	15,979.8	10,930.2	-	42,484.9
Asistencia Delegación Técnica Regional APN /p	-	14,536.6	14,914.5	15,302.3	15,692.4	60,445.7
Subtotal Asistencia Técnica	-	68,269.9	70,044.9	66,401.0	56,884.9	261,600.6
Total Investment Costs	126,815.6	384,374.5	846,488.7	73,603.6	56,884.9	1,488,167
II. Recurrent Costs						
A. Personal Contratado APN						
Intendente	-	15,571.0	31,936.2	32,750.6	33,577.4	113,835.2
Guardaparque	21,870.0	22,422.1	22,994.1	47,160.8	48,351.5	162,798.7
Baqueanos	7,290.0	7,474.1	7,664.7	23,580.4	24,175.7	70,184.9
Administrativo	-	7,474.1	15,329.4	15,720.1	16,117.2	54,640.9
Subtotal Personal Contratado APN	29,160.0	52,941.5	77,924.3	119,212.1	122,221.8	401,459.7
B. Movilidad						
Movilidad Vehiculos	6,480.0	13,288.9	20,446.5	20,972.8	21,504.9	82,693.1
Viaticos APN	-	2,803.1	2,875.3	4,915.5	6,048.2	16,642.2
Viaticos APN	-	934.4	1,916.9	1,932.4	4,032.2	10,815.8
Otros Viaticos	-	11,773.1	12,076.2	9,258.1	9,467.5	40,574.9
Subtotal Movilidad	6,480.0	28,799.5	37,314.8	38,078.8	40,052.8	150,725.9
C. Operación Mantenimiento y Suministros						
Mantenimiento de Vehiculos	-	-	-	5,461.7	5,600.2	11,061.9
Mant. Edif. Instal. Caminos y Equipos	-	-	-	-	11,200.5	11,200.5
Teléfono	2,430.0	2,491.7	2,555.8	2,621.6	2,688.1	12,787.2
Luz, Gas y Agua	3,037.5	6,229.2	9,584.3	9,831.0	10,080.4	38,762.4
Papeleria y Utiles	1,518.8	3,114.6	3,194.9	3,277.0	-	11,105.1
Material Técnico /q	-	1,557.3	1,597.4	1,638.5	-	4,793.2
Subtotal Operación Mantenimiento y Suministros	6,986.3	13,392.7	16,932.2	22,829.8	29,569.2	89,710.2
D. Servicios Contratados						
Servicios de Edición	-	2,595.5	2,662.3	2,730.8	-	7,988.6
Servicios de Limpieza	1,822.5	1,717.5	6,750.6	7,964.8	8,064.3	27,319.7
Subtotal Servicios Contratados	1,822.5	6,111.0	9,412.9	10,695.7	8,064.3	35,228.1
Total Recurrent Costs	44,448.8	101,466.7	140,584.2	190,716.4	199,908.2	677,124.2
Total	171,264.4	485,841.1	987,073.0	264,320.0	256,793.1	2,165,292

\a Construccion de la vivienda para el Intendente y un Guardaparque, en Santa Cruz.
\b Construcción de la vivienda para un Guardaparque y un Baqueano en Monte Leon.
\c Construcción de oficina de APN en Santa Cruz.
\d Construcción del Centro de Recepción e Interpretación en Monte Leon.
\e Construcción de dos Destacamentos: uno en Pico Quebrado y otro en Monte Leon.
\f En Monte Leon.
\g Dos en Pico quebrado y uno en Monte Leon.
\h En Monte Leon.
\i En Monte Leon.
\j En Monte Leon.
\k Incluye 3 bases y cuatro radios moviles.
\l Incluye: camara de video, cámara fotográfica, TV, video registradora, retroproyector y proyector de diapositivas.
\m Incluye: implementos para lucha contra incendios.
\n Incluye baterias y torres.
\o Estudio e informe de impacto ambiental de las inversiones financiadas por el GEF.
\p Incluye Viajes y Viáticos por 30 días.
\q Incluye: bibliografia, imagenes satelitarias, software, etc..

Argentina
BIODIVERSITY CONSERVATION PROJECT
Table 101. PROTECTED AREA ESTABLISHMENT & MANAGEMENT - Quebrada Condoritos
Detailed Costs
(US$)

	Totals Including Contingencies					
	1998	1999	2000	2001	2002	Total
I. Investment Costs						
A. Land Purchase						
Land Purchase	2,865.881	-	-	-	-	2,865,881
B. Civil Works						
Repair Housing /a	148,752.5	29,053.2	-	-	-	177,805.7
Repair Admin Office /b	-	36,316.5	-	-	-	36,316.5
Interpretation Center Repair /c	-	65,369.8	-	-	-	65,369.8
Research Center Rehab /d	-	65,369.8	-	-	-	65,369.8
Repair Refuges /e	42,500.7	-	-	-	-	42,500.7
Warehouse Rehab /f	-	36,316.5	-	-	-	36,316.5
Control Post Construction /g	14,166.9	-	-	-	-	14,166.9
Campsite Bathroom Construction	-	10,895.0	-	-	-	10,895.0
Subtotal Civil Works	205,420.1	243,320.8	-	-	-	448,740.8
C. Roads and Trails						
Road Rehab	-	31,405.4	-	-	-	31,405.4
Interpretive Trails	-	8,565.1	-	-	-	8,565.1
Access Trail	-	18,272.2	-	-	-	18,272.2
Subtotal Roads and Trails	-	58,242.7	-	-	-	58,242.7
D. Machinery and Equipment						
Computer Hardware	1,898.1	1,996.3	-	-	-	7,894.4
Furniture	10,023.8	6,850.8	-	-	-	16,874.5
Communication Equipment /h	6,682.5	-	-	-	-	6,682.5
Photocopier	1,336.5	-	-	-	-	1,336.5
Telephones/Fax	891.0	-	-	-	-	891.0
Audiovisual Kit /i	6,682.5	6,850.8	-	-	-	13,533.3
Paneles Interpretación	6,682.5	6,850.8	-	-	-	13,533.3
Fire Fighting Equip /j	-	3,425.4	-	-	-	3,425.4
Meteorological Stations	1,670.6	-	-	-	-	1,670.6
Solar Panels	-	6,850.8	7,024.5	-	-	13,875.3
Generator (35kv) /k	-	13,701.6	-	-	-	13,701.6
Generator (3 kv)	-	4,110.5	-	-	-	4,110.5
Tractor (with tools)	-	60,515.2	-	-	-	60,515.2
Subtotal Machinery and Equipment	37,867.5	113,152.0	7,024.5	-	-	158,044.0
E. Vehicles						
Pick-ups	33,412.5	68,507.8	-	-	-	101,920.3
Motorcycles	-	4,671.0	-	-	-	4,671.0
Horses	2,025.0	2,276.0	-	-	-	4,101.0
Subtotal Vehicles	35,437.5	75,254.7	-	-	-	110,692.2
F. Technical Assistance						
Local Technical Assistance	7,087.5	14,536.6	14,914.5	15,302.3	15,692.4	67,533.2
National Technical Assistance	-	5,451.2	5,592.9	5,738.4	5,884.6	22,667.1
Programa de Cooperación Institucional Local /l	14,175.0	14,536.6	14,914.5	15,302.3	15,692.4	74,620.7
Programa de Cooperación Institucional Nacional	-	9,085.3	9,321.6	9,563.9	9,807.7	37,778.6
Environmental Analyses /m	5,062.5	5,191.6	5,326.6	5,465.1	-	21,045.8
Asistencia a Delegación Técnica Regional APN /n	1,541.8	14,536.6	14,914.5	15,302.3	15,692.4	61,989.5
Subtotal Technical Assistance	29,868.8	63,117.8	64,984.6	66,674.2	62,769.5	287,514.9
Total Investment Costs	3,174,475	553,308.0	72,009.1	66,674.2	62,769.5	3,929,236
II. Recurrent Costs						
A. Personal Contratado APN						
Intendente	-	31,142.1	31,936.2	32,750.6	33,577.4	129,406.3
Guardaparque	21,870.0	44,844.6	45,988.1	47,160.8	48,351.5	208,215.0
Administrativo	-	14,948.2	15,329.4	15,720.1	16,117.2	62,115.0
Subtotal Personal Contratado APN	21,870.0	90,934.8	93,253.7	95,631.7	98,046.1	399,736.3
B. Transportation/Perdiem						
Transportation	8,100.0	24,916.6	25,558.1	26,216.1	26,881.1	111,671.9
Perdiem	2,733.8	4,671.9	5,750.6	5,898.6	6,048.2	25,103.0
Viaticos APN	1,822.5	3,737.5	3,833.7	3,932.4	4,032.2	17,358.3
Other Perdiem	11,481.8	11,773.1	8,050.8	8,258.1	8,467.5	48,031.1
Subtotal Transportation/Perdiem	24,138.0	45,099.1	43,193.2	44,305.1	45,429.0	202,164.5
C. Materials and Supplies						
Vehicle Maintenance	-	-	-	5,461.7	5,600.2	11,061.9
Maintenance Bldg., Equipt., etc.	-	-	10,649.2	10,923.4	11,200.5	32,773.0
Telephone	2,430.0	2,491.7	2,555.8	2,621.6	2,688.1	12,787.2
Utilities	2,025.0	6,229.2	10,649.2	10,923.4	11,200.5	41,027.2
Supplies	1,518.8	3,114.6	3,194.8	3,277.0	3,360.1	14,465.2
Technical Material /o	1,518.8	1,557.3	1,597.4	1,638.5	1,680.1	7,992.0
Subtotal Materials and Supplies	7,492.5	13,392.7	28,646.4	34,845.5	35,729.4	120,106.5
D. Contracted Services						
Editorial Services	2,531.3	2,595.5	2,662.3	2,730.8	2,800.1	13,320.0
Cleaning	1,822.5	1,717.5	5,750.6	5,898.6	6,048.2	21,257.4
Subtotal Contracted Services	4,353.8	4,313.0	8,412.9	8,629.5	8,848.4	34,577.4
Total Recurrent Costs	57,854.1	155,759.6	171,506.1	181,411.8	188,052.8	758,584.7
Total	3,232,329	709,067.6	245,515.2	250,086.0	250,822.5	4,687,821

\a Refacción de la vivenda para el Intendente, tres Guardaparques y tres Baqueanos.
\b Refacción de oficina de APN en el Hotel el Condor.
\c Refacción del Centro de Interpretación en el Hotel el Condor.
\d Refacción de oficina y vivienda para el grupo de trabajo nacional y provincial en el Hotel el Condor.
\e Incluye dos refugios de 60 m2.
\f Refacción de un taller en el Hotel el Condor.
\g Incluye dos puestos de 20 m2.
\h Incluye 3 bases y cinco radios moviles.
\i Incluye: cámara de video, cámara fotográfica, TV, video registradora, retroproyector y proyector de diapositivas.
\j Incluye: acoplado, tanque de agua y bomba.
\k Para Hotel el Condor.
\l Costos de los cursos y talleres.
\m Estudio e informe de impacto ambiental de las inversiones financiadas por el GEF.
\n Incluye Viajes y Viáticos por 30 días.
\o Incluye: Bibliografia, imagenes satelitarias, software, ecc..

Thu Jun 26 15:37:12 1997

Argentina
BIODIVERSITY CONSERVATION PROJECT
Procurement Arrangements
(US$)

	Procurement Method					
	Licitacion Local Abierta	Compra Local	Contratación Directa	Consultores	N.B.F.	Total
National Competitive Bidding	722,321.8 (130,018.3)	-	-	-	-	722,321.8 (130,018.3)
Not GEF Financed	-	-	415,545.5	-	9,709,887 (9,709,887)	10,125,432 (9,709,887)
International Competitive Bidding	-	-	-	-	-	
Other	-	7,542,655 (1,144,447)	-	3,198,018 (72,602.8)	-	10,740,673 (1,217,050)
Total	722,321.8 (130,018.3)	7,542,655 (1,144,447)	415,545.5 -	3,198,018 (72,602.8)	9,709,887 (9,709,887)	21,588,429 (11,056,955)

Note: Figures in parentnesis are the respective amounts financed by APN

Thu Jun 26 17:00:26 1997

Argentina
BIODIVERSITY CONSERVATION PROJECT
Project Components by Year
(US$)

	Totals Including Contingencies					
	1998	1999	2000	2001	2002	Total
A. Protected Areas						
1. Establishment of New Protected Areas	8,298,012	2,886,284	2,999,424	1,365,830	1,364,118	16,913,667
2. Sustainable Development Activities	463,218.8	373,356.3	316,224.4	204,208.5	148,657.5	1,505,665
3. Participation	401,384.1	407,002.2	175,892.2	115,042.8	141,567.8	1,864,889
Subtotal Protected Areas	9,164,614	3,666,642	3,691,540	1,905,082	1,856,343	20,284,222
B. Information Management						
1. Information System	145,667.5	155,711.7	96,149.5	37,879.1	18,688.5	654,096.3
Subtotal Information Management	145,667.5	155,711.7	96,149.5	37,879.1	18,688.5	654,096.3
C. Management, Monitoring and Evaluation						
1. Project Unit	116,130.6	117,636.7	149,554.7	121,844.2	124,944.9	650,111.1
Subtotal Management, Monitoring and Evaluation	116,130.6	117,636.7	149,554.7	121,844.2	124,944.9	650,111.1
Total PROJECT COSTS	9,646,413	3,939,991	3,937,244	2,064,805	1,999,977	21,588,429

Thu Jun 26 15:23:27 1997

Argentina
BIODIVERSITY CONSERVATION PROJECT
Expenditure Accounts by Financiers
(US$)

	APN		GEF		Beneficiarios		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs											
A. Land /a											
1. Land Purchase	6,534,473	100.0	-	-	-	-	6,534,473	30.3	-	6,534,473	-
B. Works											
1 Civil Works	322,314.1	12.0	2,363,637	88.0	-	-	2,685,951	12.4	536,945.1	1,826,691	322,314.1
2. Road and Trails	141,056.6	18.0	642,582.2	82.0	-	-	783,636.8	3.6	156,617.6	454,619.1	172,400.1
3. Other Works	60,432.0	18.0	275,301.4	82.0	-	-	335,733.4	1.6	67,108.4	194,763.7	73,861.4
Subtotal Works	523,800.7	13.8	3,281,520	86.2	-	-	3,805,321	17.6	760,671.1	2,476,074	568,575.5
C. Goods											
1. Machinery and Equipment	151,450.6	18.0	689,941.5	82.0	-	-	841,392.0	3.9	420,572.9	235,712.9	185,106.2
2. Vehicles	130,018.2	18.0	592,305.5	82.0	-	-	722,323.8	3.3	361,068.0	202,344.5	158,911.2
Subtotal Goods	281,468.8	18.0	1,282,247	82.0	-	-	1,563,716	7.2	781,641.0	438,057.4	344,017.5
D. Services /b											
1. Enviromental Studies	-	-	158,362.2	100.0	-	-	158,362.2	0.7	-	158,362.2	-
2. Training	72,602.8	12.0	532,420.8	88.0	-	-	605,023.6	2.8	120,894.3	419,293.3	64,832.0
3. Other Technical Assistant	-	-	2,434,632	100.0	-	-	2,434,632	11.3	200,128.9	2,215,065	19,438.7
Subtotal Services	72,602.8	2.3	3,125,415	97.7	-	-	3,198,018	14.8	321,023.2	2,792,721	84,270.7
Total Investment Costs	7,412,345	49.1	7,689,182	50.9	-	-	15,101,527	70.0	1,863,335	12,241,328	996,863.7
II. Recurrent Costs											
A. Buffer Zone Activities	104,147.9	12.0	763,751.4	88.0	-	-	867,899.3	4.0	173,431.3	603,338.2	91,129.4
C. Beneficiary Counterpart	-	-	-	-	415,545.5	100.0	415,545.5	1.9	-	415,545.5	-
D. Social Impact Mitigation Plan APN /c	874,591.9	100.0	-	-	-	-	874,591.9	4.1	-	367,498.4	507,093.5
E APN Contracted Personnel	2,126,705	100.0	-	-	-	-	2,126,705	9.9	424,954.5	425,727.5	1,276,023
F Operating	310,364.6	18.0	1,413,883	82.0	-	-	1,724,248	8.0	384,378.3	1,000,535	379,334.5
G. Materials and Supplies	24,724.1	18.0	112,632.0	82.0	-	-	137,356.1	0.6	27,436.0	79,701.7	30,218.3
H. Office Operations - APN	29,304.0	100.0	-	-	-	-	29,304.0	0.1	5,856.2	17,002.9	6,446.9
I. Consultative Commissions Operating Costs	144,813.5	100.0	-	-	-	-	144,813.5	0.7	28,926.1	84,028.5	31,859.0
K. Services Contracting	29,959.0	18.0	136,479.7	82.0	-	-	166,438.7	0.8	33,243.2	96,579.0	36,616.5
Total Recurrent Costs	1,644,610	56.2	2,426,746	37.4	415,545.5	6.4	6,486,902	30.0	1,038,224	3,089,957	2,358,721
Total Disbursement	11,056,955	51.2	10,115,929	46.9	415,545.5	1.9	21,588,429	100.0	2,901,559	15,331,285	1,355,585

\a Land cost, including measurent and titling.
\b Including: Fees, perdiem, travel and other task related expenses.
\c Including: Fire Brigate (ex pobladores) and Baqueanos Salaries and other expenses.

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Argentina
BIODIVERSITY CONSERVATION PROJECT
Local/Foreign/Taxes by Financiers
(US$)

	APN		GEF		Beneficiarios		Total	
	Amount	%	Amount	%	Amount	%	Amount	%
I. Foreign	459,734.9	20.4	2,441,824.6	79.6	-	-	2,901,559.5	14.2
II. Local (Excl. Taxes)	7,241,634.9	47.1	7,674,104.2	50.2	415,545.5	2.7	15,331,284.6	71.0
III. Taxes	3,355,585.0	100.0			-	-	3,355,585.0	14.7
Total Project	11,056,954.8	51.1	10,115,928.8	46.9	415,545.5	1.9	21588429.11	100.0

Argentina
BIODIVERSITY CONSERVATION PROJECT
Components by Financiers
(US$)

	APN		GEF		Beneficiarios		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%			
A. Protected Areas											
1. Establishment of New Protected Areas	9,562,728	56.5	7,350,939	43.5	-	-	16,913,667	78.3	2,214,450	12,266,978	2,432,240
2. Sustainable Development Activities	124,000.0	8.2	966,119.9	64.2	415,545.5	27.6	1,505,665	7.0	195,464.9	1,194,807	115,393.1
3. Participation	1,087,038	58.3	777,850.7	41.7	-	-	1,864,888	8.6	125,493.6	1,069,917	619,468.0
Subtotal Protected Areas	10,773,767	53.1	9,094,910	44.8	415,545.5	2.0	20,284,222	94.0	2,585,409	14,531,712	3,167,101
B. Information Management											
1. Information System	167,443.9	25.6	486,652.4	74.4	-	-	654,096.3	3.0	279,137.1	250,850.0	124,109.1
C. Management, Monitoring and Evaluation											
1. Project Unit	115,744.4	17.8	534,366.7	82.2	-	-	650,111.1	3.0	17,011.6	548,222.6	84,375.0
Total Disbursement	11,056,955	51.2	10,115,929	46.9	415,545.5	1.9	21,588,429	100.0	2,901,559	15,331,285	3,355,585

Thu Jun 26 15:31:51 1997

Argentina
BIODIVERSITY CONSERVATION PROJECT
Financed by Years
(US$)

	Totals Including Contingencies						
	1998	1999	2000	2001	2002	Total	Incremental Annual Recurrent
APN Financed	7,232,006.4	946,121.9	1,107,302.9	886,815.2	884,708.4	11,056,954.8	800,000.00
GEF Financed	2,252,405.6	2,869,269.1	2,744,715.4	1,134,268.0	1,115,270.6	10,115,928.7	-
Beneficiary Financed	162,000.0	124,599.0	85,225.7	43,720.8	-	415,545.5	-
Total	9,646,412.0	3,939,990.0	3,937,244.0	2,064,804.0	1,999,979.0	21,588,429.0	800,000.00

ANNEX I: SUPERVISION PLAN

Approx. Dates	Activity	Skill Requirements	Staff Input (SW)
12/1997	Project Launch Review Annual Work Plan (POA) PU establishment Review Implementation Manual Legal aspects of park establishment	- Task Manager - PA Specialist -Lawyer/Social Scientist	5 2 2
6/1998	Review Procurement procedures Review SOEs, especially for consultant travel costs Review Info system development Review POA & Procurement Review Park Proposals - Works & EIAs - Selection Criteria bufferzone - CC establishment - Monitoring Activities - Participation Plans - Mitigation Plans	- Task Manager - Info system specialist - Procurement specialist - PA Specialist - Social scientist	5 2 1 2 2
12/1998	Review Accounting system Technical asst of Park Development Field visits Review Participation Plan Review Bufferzone Proposals Review SOEs/Audit Procurement review	- Task Manager - Park Specialist	5 3
6/1999	Discuss Progress Report Review draft management plans Review Information System Dev. Procurement Review Review POA	- Task Manager - Info Tech Specialist	5 3
12/1999	Review Legal Aspects of PAs Review Compensation Program Procurement review/record keeping Park Dev Plans Review Environmental Assessment Review SOEs/Audit Review TOR for Mid-term Review	- Task Manager - Lawyer -PA Specialist	5 1 2
6/2000	Discuss Min-Term Review and agree on adjustments in Project Review SOEs/Procurement Review Monitoring & Evaluation Review CC operation Review Participation Plan Review Training Program Review POA	- Task Manager - Park Specialist - Social Scientist	5 3 3

Approx. Dates	Activity	Skill Requirements	Staff Input (SW)
12/2000	Field visits to Review: - Operation of Bufferzone Act. - Park Developments - Monitoring Activities Biodiversity Info System Review SOEs/Audit Review Procurement Discuss Progress Report	- Task Manager - Info Specialist	6 2
6/2001	Review Park Developments Review Bufferzone Programs Attend CC meetings Review POA Discuss Annual Review	- Task Manager - P.A. Specialist	6 2
12/2001	Review Park Infrastructure work Review field activities Review Monitoring program Procurement Review Review SOEs/Audit Discuss Annual Review TORs for BCR	- Task Manager - Park Specialist - Economist	5 3 2
6/2002	Discuss project evaluation/BCR Final field review Review Information System Economic Analysis	-Task Manager -PA Specialist - Information Specialist -Economist	4 3 3 3
12/2002	Write ICR	-Task Manager	10
		TOTAL SW	**105**

Supervision Requirements by IBRD FY
(SWs)

IBRD FY	1998	1999	2000	2001	2002	2003	Total
Field	14	12	14	12	17	10	79
Bank	7	4	5	4	6		26
Total SW	21	16	19	16	23	10	105

ANNEX J: SELECTED DOCUMENTS AND DATA IN PROJECT FILES

Produced by APN, Buenos Aires

1. Manual de Implementación del Proyecto. mayo 1997.

2. Social Assessment. abril, 1997.

3. El Sistema Nacional de Areas Naturales Protegidas de la Argentina; Diagnóstico de su Patrimonio Natural y su Desarrollo Institucional. Administarción de Parques Nacionales. Buenos Aires, Argentina, January 1994. 129 p.

4. Reglamento para la Evaluación Impacto Ambiental en Areas de la Administración de Parques Nacionales, APN, 1994. 10 p.

5. Otero, Adriena, 1996. Tourism Demand for National Park Services. Study for APN.

6. Preprojecto de Consolidacion y Desarrollo de Area Naturales Protegidas en La Argentina. Por Roberto Ronchieto, Consultor, y Pablo Canivari, Humadales para Las Americas, January 14, 1995.

7. Proyecto de Conservacion de la Biodiversidad en Argentina: Project Brief. APN, septiembre de 1996

8. Domecq, Susana, enero 1997. Actividades de Uso Sustentable para la Conservacion de la Biodiversidad en Zonas de Amortiguamiento de los Parques Nacionales. 72 p.

9. Krapovickas, S., et al. 1994. Analísis de Prioridades Biogeograficas para la Ampliación del Sistema de Áreas Protegidas Nacionales en al Argentina. APN.

10. Gomez, et al., 96: Prioridades para el establecimiento de nuevas áreas nacionales protegidas a ser incluidas en el Proyecto GEF

11. Bosso, et al. 92: Sistemas provinciales de áreas naturales protegidas: modelo para su diseno.

12. Ley 22,351 of 1980. Regime Legal de los Parques Nacionales. Argentina.

13. Sanchez, E., Oct. 96: Antecedentes, El Proyecto, and Arreglos Institucionales (San Guillermo).

14. INTA, 1995: Conservación del venado de las pampas y el Pastizal pampeano en la Provincia de San Luis.

15. APN, 1996: Propuesta de creación de un área protegida nacional como parte de la actual Reserva Natural Copo.

16. APN/G, 1996. Sistema de Areas Naturales Protegidas de la Provincia de San Juan (Republica Argentina). De la Provincia de San Juan/Fundacion Ambientalista Sanjuanina.

Produced by NGOs and Others

17. Situación Ambiental de la Argentina; Recomendaciones y Prioridades de Acción. Boletín Técnico No 14, ISSN 0327-6937. Buenos Aires, May 1993. Fundación Vida Silvestre Argentina. 69 p.

18. Perfil Ambiental de la Argentina. Simposio Argentina, January 23, 1994. Union Mundial para la Naturaleza. Buenos Aires, 1994. 50 p.

19. Fundación Vida Silvestre. 1986. Plan de Investigación del Litoral Marítimo de la Provincia de Santa Cruz.

20. Gandini & Frere, 96: Lista de Especies que Reproducen o Utilizan el Area de Monte León como Área de Paso.

21. Harris, 96: Patagonian Coastal Zone Management Plan Protected Areas on the Coast: Background and Summary of Future Objectives.

22. Peréz, F., P. Sutton, and A. Vila. 1995. Aves y Mamíferos Marinos de Santa Cruz: Recopilación de los Relevamientos Realizados entre 1986 y 1994.

23. CNPPA, 1995. Criterios para Selección de Áreas Protegidas Costeras y Marinas (Litoral Argentina).

24. Subsecretaria de Ciencia y Tecnologia/Ministerio de Cultura y Educacion, 1981. La Reserva Provincial San Guillermo y sus Asociaciones Ambientales.

25. Provincia de Santiago del Estero et. al., 1994. Inventario Forestal de la Provincia de Saniago del Estero, Departamentos Copo y Alberdi.

26. Secretaria de Recursos Naturales y Ambiente Humano, 1996. Estrategia Nacional de Biodiversidad: Plan de Accion e Informe a la Convencion de Diversidad Biologica.

Produced by FAO/CP, Rome

27. Bucher, E.H., J. M. Chani, D. Gomez and M. Babarskas, December 1996. Identificacion y Priorizacion de Ecoregiones y Sitios de Importancia Global. 80 p.

Produced by the World Bank

28. ARGENTINA: Forestry Sector Review. Report No. 11833-AR, April 26, 1993. Agriculture Operations Division, Country Department IV.

29. ARGENTINA: Biodiversity Conservation Project. Proposal for Project Development Funds (PDF), Block B Grant. Global Environment Facility. GEF-PPA No. 28464.

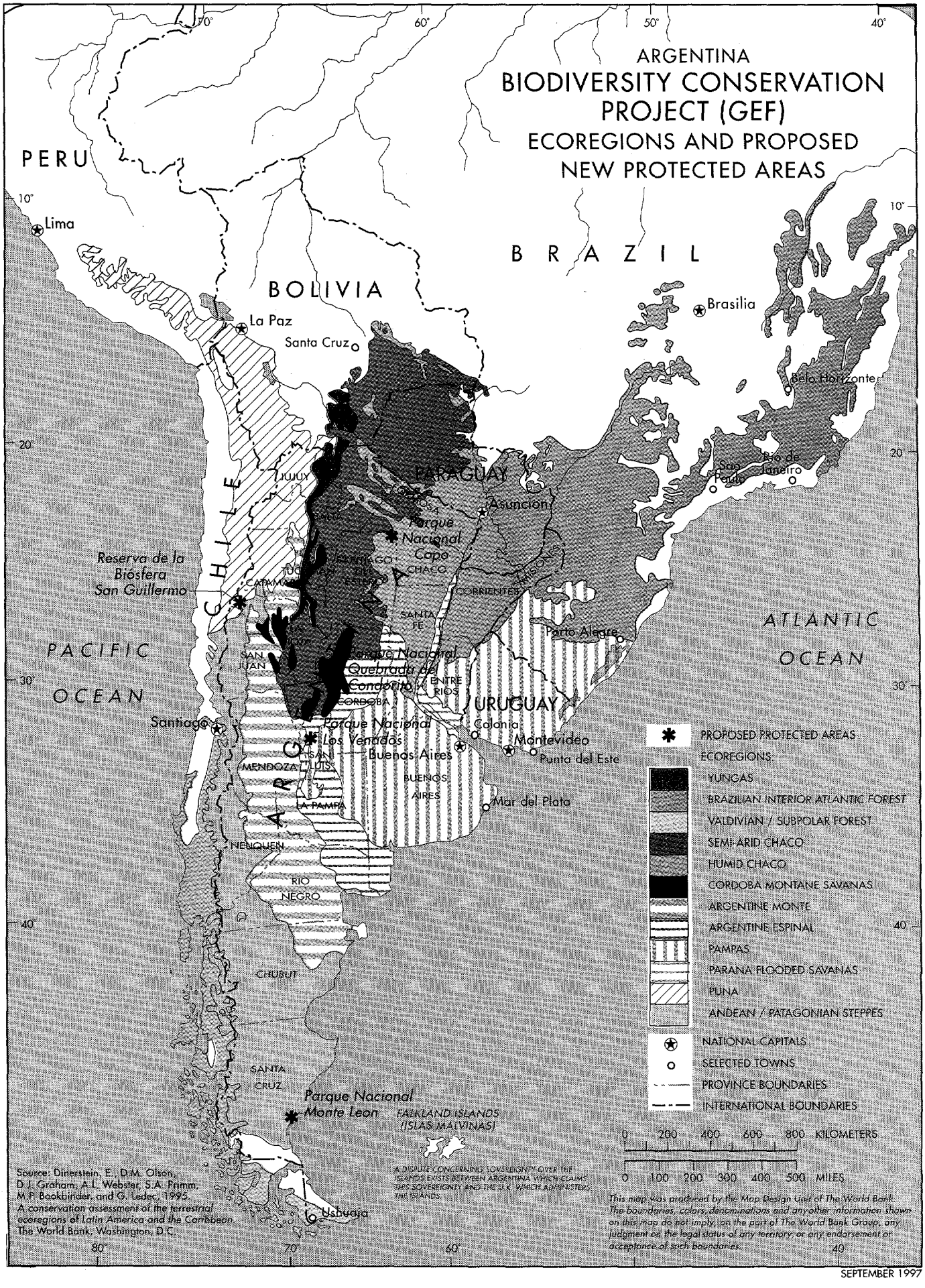
30. ARGENTINA: Biodiversity Conservation Project. Global Environment Facility--Project Information Document. Project ID Number: AR-GE-39787. May 28, 1996.

31. ARGENTINA: Biodiversity Conservation Project--Proposal for Review. Submitted to the GEF Secretariat for the January 1997 Intersessional Work Program on January 17, 1997.

32. Ledec et. al., 1997. Critical Natural Habitats in Latin America and the Caribbean. Volume 1: Southern Cone. The World Bank/Agriconsulting SpA, and the World Conservation Monitoring Centre.

IBRD 28753

ARGENTINA
BIODIVERSITY CONSERVATION PROJECT (GEF)
ECOREGIONS AND PROPOSED NEW PROTECTED AREAS



Source: Dinerstein, E., D.M. Olson, D.J. Graham, A.L. Webster, S.A. Primm, M.P. Bookbinder, and G. Ledec. 1995. *A conservation assessment of the terrestrial ecoregions of Latin America and the Caribbean.* The World Bank, Washington, D.C.

A DISPUTE CONCERNING SOVEREIGNTY OVER THE ISLANDS EXISTS BETWEEN ARGENTINA WHICH CLAIMS THIS SOVEREIGNTY AND THE U.K. WHICH ADMINISTERS THE ISLANDS.

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SEPTEMBER 1997

Document of
The World Bank

Report No: ICR0000960

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(TF-28372)

ON A

GRANT

IN THE AMOUNT OF US $10.1 MILLION

TO THE

ARGENTINE REPUBLIC

FOR A

BIODIVERSITY CONSERVATION PROJECT

September 30, 2008

Sustainable Development Department
Argentina, Chile, Paraguay, and Uruguay
Latin America and the Caribbean

CURRENCY EQUIVALENTS

(Exchange Rate Effective August 11, 2008)

Currency Unit = Peso
$Peso 3.05 = US$1
US$ 0.327 = AR$1

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

APN	National Parks' Administration (*Administración de Parques Nacionales*)
BANK/FAO-CP	World Bank/Food and Agriculture Organization Cooperative Program
BCP	Biodiversity Conservation Project
BIS	Biodiversity Information System
CAL	Local Advisory Commissions (*Comisión Asesora Local*)
CAS	Country Assistance Strategy
CIPCAMI	Reserch Center for Prevention of Industrial Mining Contamination (*Centro de Investigación para la Prevención de la Contaminación Minero Industrial*)
CC	Consultative Commissions
CITES	Convention on International Trade in Endangered Species
CNP	Copo National Park
EIA	Environmental Impact Eavaluation
FAO	Food and Agriculture Organization of the United Nations
FM	Financial Management
GoA	Government of Argentina
ICR	Implementation Completion Report
INDEC	National Institute of Statistics
INTA	National Institute for Agricultural Research
IRR	Internal Rate of Return
LAC	Latin America and the Caribbean
LVNP	Los Venados National Park
MLNP	Monte León National Park
MNP	Mburucuyá National Park
M&E	Monitoring and Evaluation
NAP	New Protected Area
NGO	Non-Government Organization
NP	National Park
NPAS	National Protected Areas System
NPV	Net Present Value
OED	Operations Evaluation Department
OD	Bank´s Operational Directive
OP	Bank´s Operational Policy
PAR	Project Audit Report

PIU	Project Implementation Unit
POA	Annual Work Plan (*Plan Operativo Anual*)
QCNP	Quebrada del Condorito National Park
SAyDS	Secretariat of Environment and Sustainable Development *(Secretaría de Ambiente y Desarrollo Sustentable)*
SGNP	San Guillermo National Park
SMNR	Sustainable Management of Natural Resources Project, loan 7520 AR
SOE	Statement of Expenditure
SRNyAH	Secretariat of Natural Resources and Human Environment *(Secretaría de Recursos Naturales y Ambiente Humana)*
TA	Technical Assistance
TOR	Terms of Reference
UN	United Nations
WWF	World-Wide Fund for Nature

Vice President:	Pamela Cox
Country Director:	Pedro Alba
Sector Manager:	Laura Tlaiye
Project Team Leader:	Robert Davis
ICR Team Leader :	Florencia Reca

ARGENTINE REPUBLIC
GEF BIODIVERSITY CONSERVATION

CONTENTS

A. Basic Information

Country:	Argentina	Project Name:	Biodiversity Conservation Project (GEF)
Project ID:	P039787	L/C/TF Number(s):	TF-28372
ICR Date:	10/08/2008	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	GOVERNMENT
Original Total Commitment:	USD 10.1M	Disbursed Amount:	USD 9.8M
Environmental Category: B		**Global Focal Area: B**	
Implementing Agencies: Administacion de Parques Nacionales			
Cofinanciers and Other External Partners:			

B. Key Dates

Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	02/17/1995	Effectiveness:	05/29/1998	05/29/1998
Appraisal:	06/23/1997	Restructuring(s):		
Approval:	10/21/1997	Mid-term Review:		07/23/2001
		Closing:	06/30/2006	03/31/2008

C. Ratings Summary

C.1 Performance Rating by ICR

Outcomes:	Satisfactory
Risk to Global Environment Outcome	Low or Negligible
Bank Performance:	Satisfactory
Borrower Performance:	Satisfactory

C.2 Detailed Ratings of Bank and Borrower Performance

Bank	Ratings	Borrower	Ratings
Quality at Entry:	Satisfactory	Government:	Satisfactory
Quality of Supervision:	Satisfactory	Implementing Agency/Agencies:	Satisfactory
Overall Bank Performance:	Satisfactory	**Overall Borrower Performance:**	Satisfactory

C.3 Quality at Entry and Implementation Performance Indicators

Implementation Performance	Indicators	QAG Assessments (if any)	Rating
Potential Problem Project	Yes	Quality at Entry	None

at any time (Yes/No):		(QEA):	
Problem Project at any time (Yes/No):	Yes	Quality of Supervision (QSA):	Satisfactory
GEO rating before Closing/Inactive status	Moderately Satisfactory		

D. Sector and Theme Codes

	Original	Actual
Sector Code (as % of total Bank financing)		
Central government administration	11	11
General agriculture, fishing and forestry sector	82	82
Other social services	7	7
Theme Code (Primary/Secondary)		
Biodiversity	Primary	Primary
Environmental policies and institutions	Primary	Primary
Land administration and management	Secondary	Secondary
Participation and civic engagement	Primary	Primary

E. Bank Staff

Positions	At ICR	At Approval
Vice President:	Pamela Cox	Shahid Javed Burki
Country Director:	Pedro Alba	Myrna L. Alexander
Sector Manager:	Laura E. Tlaiye	Constance A. Bernard
Project Team Leader:	Robert Ragland Davis	Robert Kirmse
ICR Team Leader:	Florencia Ines Reca	
ICR Primary Author:	Florencia Ines Reca	

F. Results Framework Analysis

Global Environment Objectives (GEO) and Key Indicators(as approved)

The general goal of the project is to conserve biodiversity of global importance; the specific objectives are to: (a) expand and diversify the existing national protected areas system to include several of the country's most globally significant but inadequately protected ecoregions, and (b) create the conditions for their sustainable management through investments in institutional strengthening, refined mechanisms of consultation and participation, and improved biodiversity information management.

Revised Global Environment Objectives (as approved by original approving authority) and Key Indicators and reasons/justifications

not applicable

(a) GEO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Effective management of new protected areas. Increased provincial presence in provincial reserves around project federal PAs.			
Value (quantitative or Qualitative)	0	Increased provincial presence in provincial reserves	Increased federal and provincial presence in PAs and provincial reserves	Demonstrable increase in federal/provincial presence in 5 PAs and 3 reserves - PAs have 67 federal staff and provincial reserves have 19 provincial rangers.
Date achieved	07/01/1998	06/30/2006	11/16/2006	03/31/2008
Comments (incl. % achievement)	100% (data from provincial and APN records verify institutional presence)			
Indicator 2 :	Effective management of new protected areas: Less disturbances of, and incursions into, protected areas (illegal extraction of resources)			
Value (quantitative or Qualitative)	0	decreased disturbances and incursions	n/a	Disturbances reduced by half according to surveys in PAs. (Five PAs with ecosystems of global importance protected by 31 rangers and 11 firefighters. Incursions, fires and disturbances

				substantially reduced from increased control by APN.)
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	99% (Some minor incursions reported. Protection of areas is secured by APN to extent possible.)			
Indicator 3 :	Better protection for key indicator species: Populations of indicator species			
Value (quantitative or Qualitative)	0	increased protection for indicator species	n/a	Monitoring program shows indicator species populations stable or increasing in surveys. Habitat protection secured for 300 species (16 threatened) in Montane savanna, Puna, Arid Chaco, and Patagonian Steppe.
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	Monitoring programs reporting for 26 indicator species. 97% of area of target habitats area secured. <3% of the target area habitats (Pampas) not protected/procured at closure.			
Indicator 4 :	Adoption of sustainable use practices by persons in buffer zones that are not beneficiaries of the project			
Value (quantitative or Qualitative)	0	sustainable use practices adopted by non-beneficiaries	n/a	Expert estimates indicate low levels of adoption of non-beneficiaries.
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	Non-beneficiaries not adopting practices due to lack of capacity and financial support.			
Indicator 5 :	Development of groups and local activities which support the protected areas objectives			
Value (quantitative or Qualitative)	0	Groups/activities support PA objectives	n/a	Groups participate in 65 Sustainable development activities implemented in park buffer zones which support the parks' conservation objectives and 53 workshops of parks' consultative

				commissions contribute to PA objectives.
Date achieved	07/01/1998	03/31/2008	03/31/2008	03/31/2008
Comments (incl. % achievement)	100%			
Indicator 6 :	A majority of the members of the consultative commissions are satisfied with their participation in the commission			
Value (quantitative or Qualitative)	0	Majority of participants satisfied	n/a	Survey results indicate participants of 5 consultative commissions satisfied with participation
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	100%			
Indicator 7 :	Increase in public participation in the creation and protection of other federal and provincial protected areas			
Value (quantitative or Qualitative)	0	Increase in public participation/protection in other areas	n/a	APN has adopted the format of participation for the project and has formally agreed to apply them to 11 additional protected areas
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	100%			
Indicator 8 :	Mitigation plan: Levels of income for affected families reestablished or increased			
Value (quantitative or Qualitative)	0	incomes increase	n/a	Surveys indicate increases in income for mitigation plan participants in Condorito, Copo and Monte Leon.
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	100%			
Indicator 9 :	Increase in access to biodiversity data: Number of users from outside the national parks administration system providing or accessing data increases over life of project			
Value	0	increased public	n/a	the BIS is

(quantitative or Qualitative)		access to biodiversity data		accessible to the public through the internet. Over 75,000 external users annually visit the site.
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	100%			
Indicator 10 :	Mitigation plan: Affected families are satisfied with effectiveness of mitigation plan			
Value (quantitative or Qualitative)	0	0	n/a	7
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	100% (families participating in mitigation activities were overwhelmingly satisfied with the results. 1 mitigated individual in PNML is incapacitated and could not be surveyed.)			

(b) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Land purchases complete (no.)			
Value (quantitative or Qualitative)	0	5	n/a	4.5
Date achieved	07/01/1998	06/30/2006	03/31/2008	06/30/2003
Comments (incl. % achievement)	90% (A down payment made for the 5th area = 0.5 achievement.)			
Indicator 2 :	Sustainable use projects completed (no.)			
Value (quantitative or Qualitative)	0	17	15	64
Date achieved	07/01/1998	06/30/2006	11/16/2006	03/31/2008
Comments (incl. % achievement)	>400% (1 not completed)			
Indicator 3 :	Meetings of Consultative Commissions held (no.)			
Value (quantitative or Qualitative)	0	45	49	53
Date achieved	07/01/1998	06/30/2006	11/16/2006	03/31/2008

Comments (incl. % achievement)	108%			
Indicator 4 :	Person months contracted (no.)			
Value (quantitative or Qualitative)	0	350	n/a	445
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	139%			
Indicator 5 :	BIS website design complete (%)			
Value (quantitative or Qualitative)	0	100	n/a	100
Date achieved	07/01/1998	06/30/2006	03/31/2008	06/30/2008
Comments (incl. % achievement)	100% (BIS complete and on line)			
Indicator 6 :	Project unit staffed (%)			
Value (quantitative or Qualitative)	0	100	n/a	100
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	100			
Indicator 7 :	Phsical works (infrastructure) completed and in use			
Value (quantitative or Qualitative)	0	24	n/a	39, with one not in use
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	139%			
Indicator 8 :	Approval of National laws			
Value (quantitative or Qualitative)	0	4	n/a	3
Date achieved	07/01/1998	06/30/2006	03/31/2008	06/30/2007
Comments (incl. % achievement)	75%			
Indicator 9 :	Identification and placement of "Intendentes"			
Value (quantitative or Qualitative)	0	5	03/31/2008	5
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008

Comments (incl. % achievement)	100%			
Indicator 10 :	Management Plans			
Value (quantitative or Qualitative)	0	5	n/a	5
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	100%			
Indicator 11 :	Biodiversity Baseline Studies			
Value (quantitative or Qualitative)	0	5	n/a	5
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	100%			
Indicator 12 :	Social Assessment Specialist			
Value (quantitative or Qualitative)	0	1 contracted each year all years	n/a	1
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	100%			
Indicator 13 :	Public awareness campaigns			
Value (quantitative or Qualitative)	0	5	6	10
Date achieved	07/01/1998	06/30/2006	11/16/2006	03/31/2008
Comments (incl. % achievement)	160%			
Indicator 14 :	Approved proposals for subprojects			
Value (quantitative or Qualitative)	0	15	20	65
Date achieved	07/01/1998	06/30/2006	11/16/2006	03/31/2008
Comments (incl. % achievement)	500%			
Indicator 15 :	PA-specific participation plans			
Value (quantitative or Qualitative)	0	5	6	5

Date achieved	07/01/1998	06/30/2006	11/16/2006	03/31/2008
Comments (incl. % achievement)	85%			
Indicator 16 :	Stakeholder workshops			
Value (quantitative or Qualitative)	0	12	18	58
Date achieved	07/01/1998	06/30/2006	11/16/2006	03/31/2008
Comments (incl. % achievement)	338%			
Indicator 17 :	Home improvements (for mitigation)			
Value (quantitative or Qualitative)	0	10	n/a	9
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	90%			
Indicator 18 :	Person months contracted for mitigation activities			
Value (quantitative or Qualitative)	0	350	n/a	445
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	127%			
Indicator 19 :	BIS Workshops			
Value (quantitative or Qualitative)	0	2	n/a	2
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	100%			
Indicator 20 :	APN SIB Personnel Trained			
Value (quantitative or Qualitative)	0	20	n/a	27
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	135%			
Indicator 21 :	PIU Equipment Procured			
Value (quantitative or Qualitative)	0%	100%	n/a	100%

Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	100%			
Indicator 22 :	Monitoring programs underway			
Value (quantitative or Qualitative)	0%	100%	n/a	100%
Date achieved	07/01/1998	06/30/2006	03/31/2008	03/31/2008
Comments (incl. % achievement)	100% (monitoring of 26 spp in 5 parks underway)			
Indicator 23 :	Medium Term Review Complete			
Value (quantitative or Qualitative)	0	1	n/a	1
Date achieved	07/01/1998	06/30/2006	03/31/2008	12/31/2001
Comments (incl. % achievement)	100%			
Indicator 24 :	Medium Term Review Complete			
Value (quantitative or Qualitative)	0	1		1
Date achieved	07/01/1998	06/30/2006		12/31/2001
Comments (incl. % achievement)	100%			

G. Ratings of Project Performance in ISRs

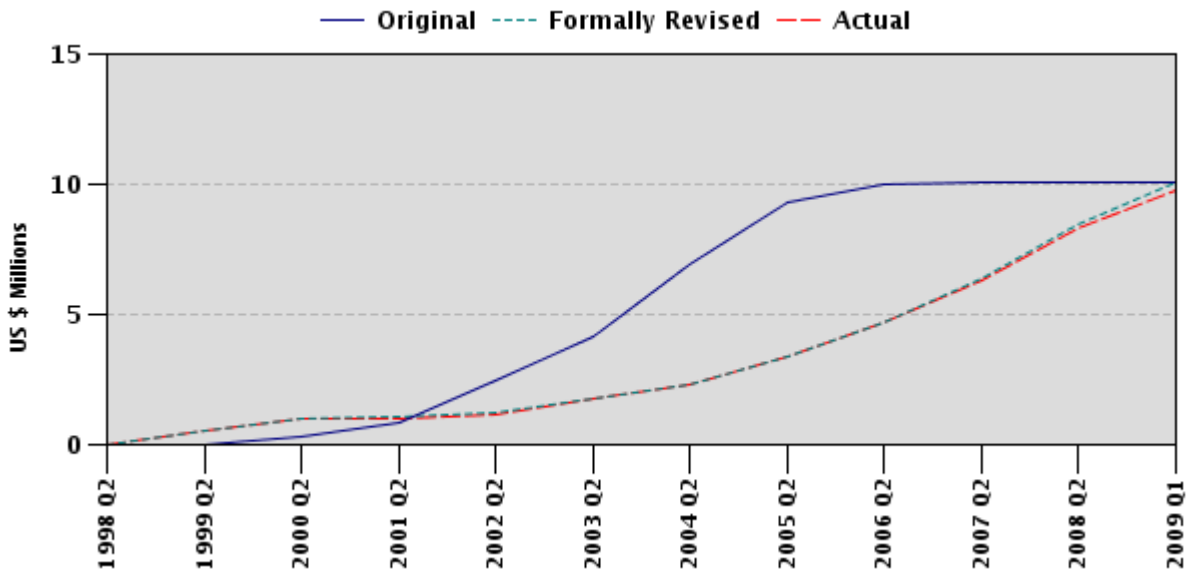
No.	Date ISR Archived	GEO	IP	Actual Disbursements (USD millions)
1	05/21/1998	Satisfactory	Satisfactory	0.00
2	10/05/1998	Satisfactory	Satisfactory	0.50
3	12/08/1998	Satisfactory	Satisfactory	0.50
4	04/29/1999	Satisfactory	Satisfactory	0.50
5	10/19/1999	Satisfactory	Satisfactory	0.74
6	04/26/2000	Satisfactory	Satisfactory	0.97
7	11/14/2000	Satisfactory	Satisfactory	1.03
8	05/23/2001	Satisfactory	Satisfactory	1.03
9	09/27/2001	Satisfactory	Satisfactory	1.18
10	05/10/2002	Satisfactory	Satisfactory	1.33
11	09/06/2002	Satisfactory	Satisfactory	1.57
12	12/20/2002	Satisfactory	Satisfactory	1.78

13	05/16/2003	Satisfactory	Satisfactory	1.78
14	06/19/2003	Satisfactory	Unsatisfactory	1.93
15	07/28/2003	Satisfactory	Satisfactory	1.93
16	12/10/2003	Satisfactory	Satisfactory	2.28
17	06/08/2004	Satisfactory	Satisfactory	2.70
18	08/17/2004	Satisfactory	Satisfactory	2.97
19	11/01/2004	Satisfactory	Satisfactory	3.09
20	04/18/2005	Satisfactory	Satisfactory	3.66
21	05/01/2006	Satisfactory	Satisfactory	4.98
22	11/20/2006	Satisfactory	Satisfactory	6.12
23	06/24/2007	Satisfactory	Moderately Satisfactory	7.13
24	12/20/2007	Moderately Satisfactory	Moderately Satisfactory	8.17
25	04/29/2008	Moderately Satisfactory	Moderately Satisfactory	9.32

H. Restructuring (if any)

Not Applicable

I. Disbursement Profile



1. Project Context, Global Environment Objectives and Design

(this section is descriptive, taken from other documents, e.g., PAD/ISR, not evaluative)

Argentina is characterized by a broad mix of ecological regions and rich biological diversity due to its wide range of climatic conditions. Of the 178 terrestrial ecoregions in Latin America and the Caribbean (identified in a World Bank/World-Wide Fund for Nature (WWF) study), 18 are found in Argentina. They range from the tropical rain forests of Misiones Province to the cold and arid Patagonian steppes of southern Argentina. While most are shared with adjacent countries, several are exclusive to Argentina, including most notably the Espinal, the Monte, the Pampas, and the Córdoba Montane Savannas (Chaco Serrano). Predictably, this diversity in ecoregions supports a large number of species of flora and fauna. With a total land area of 2.7 million km2 (two percent of the world's land surface), Argentina accounts for 12.2 percent of the world's gymnosperm species, 12.3 percent of the world's mushroom species, 10.9 percent of birds, and 8.7 percent of mammals. The country is particularly rich in endemic species, with more than 2,500 vascular plant species, 32 amphibian species, 53 reptile species, and 46 mammal species found nowhere else.

Argentina has long recognized the importance of these biological resources. Its national park system, the first in Latin America, dates back to 1903 with the donation of 7,500 ha of private land to the State. This initial holding was later enlarged and became the Nahuel Huapi National Park, the nation's first national park created along with the National Parks Commission in 1934. Other important accomplichments leading to the present national park system include the establishment of another 30 national protected areas; the creation of the national school for park rangers in 1967; and the development of a national protected areas system (NPAS) in 1986.

At appraisal, the country's protected area system (both national and provincial) had grown to cover some 4.9 percent of the national territory (about 13 million hectares). Of this total, some 22 percent was in the national park system, which consisted of 31 national protected areas, while the remaining area was under provincial or other forms of local control. In addition to their importance for biodiversity conservation, Argentina's national park system also represents an important source for generating revenue. Several of the country's national parks and reserves are major tourist attractions which provide significant sources of revenue.

Notwithstanding the global significance of the country's biological resources, their unsustainable use and over-exploitation continues at an alarming rate. Over the last century, it has been estimated that Argentina lost more than two thirds of its original forest cover. Deforestation continues unabated; the current loss rate is estimated to be 160,000 hectares per year. The Chaco is the forest ecoregion most threatened, and the location of most of current deforestation in Argentina. The loss of non- forested habitat is also significant. This is particularly true in the Pampas ecoregion, where conversion of grasslands to extensive livestock production has reduced this natural ecosystem to only one percent of its original size. Similarly, over a third of the Patagonian Steppe is severely eroded due to overgrazing by sheep and cattle, an issue of increasing concern in many of the country's other open habitats. At the species level, available information appears to support a similar pattern of irreversible loss. For example, in a recent study on the country's biodiversity species, 22 percent of Argentina's 2,355 vertebrate species were considered threatened or endangered.

At Appraisal, a National Parks Administration (APN) analysis estimated that less than 21 percent of the total area under protection was adequately managed, 30 percent under some form of management, and almost 50 percent (mostly under the jurisdiction of provincial or municipal

authorities) receives very little or no management support. Moreover, the existing National Protected Areas System (NPAS) did not equitably represent many of the country's ecoregions considered to be of global significance in terms of their biodiversity. According to the degree of protection and threat levels, nine Argentine Ecoregions were identified as top priorities for increased biodiversity conservation; the Pampas, Brazilian Interior Atlantic Forests, Semi-Arid Chaco, Patagonian Steppe, Argentine Espinal, Humid Chaco, Cordoba Montane Savannas, Littoral/Marine Habitats, and Central Andean Dry Puna.

The National Park Law (Regimen Legal de los Parques Nacionales, Monumentos Naturales y Reservas Nacionales - Mensaje y Ley Orgánica) No. 22.351 of 1981, provides the legal basis for establishing and managing protected areas (PAs) in Argentina. This law defines the management objectives and characteristics to be used to classify PAs into one of several conservation classes. Land, water and biological resources designated as national protected areas can be declared on the basis of scientific importance, education, and the enjoyment of present and future generations. Each protected area must be officially designated with its own individual national law.

The Government of Argentina (GOA) had long demonstrated a commitment to protecting biodiversity. The country is a signatory to a host of international conventions, including the Agreement on Wetlands of International Importance (RAMSAR, 1971); the Convention on International Trade in Endangered Species (CITES, 1973); the Convention for Conservation of Migratory Species (1979); and the Convention on Biological Diversity (1992) and in November 1996, the Government hosted the Third Meeting of the Conference of the Parties to the Convention on Biological Diversity. In 1994 GOA began initial consultations with technical specialists within and outside government agencies to determine priorities for a national biodiversity strategy and a national protected area network. In September 1996 GOA received a UNDP-administered GEF grant to finalize the national biodiversity strategy, including support for a process of full consultation and participation of all stakeholders. Key elements of the strategy have already been identified and have been incorporated into the design of the proposed Biodiversity Conservation Project (BCP). These elements include: (i) strengthening and extending the protected area system; (ii) increasing national and local capacity in natural resource management, both in forested and non-forested areas; and (iii) promoting greater public participation in natural resource management.

At appraisal, Argentina faced a number of constraints in addressing environmental conservation issues. In particular, constraints on public spending had severely restricted government resources available for new investments in protected areas. Efficient management of the country's natural resources was hampered by poor coordination between different levels of government, deficiencies in the policy and legal framework, and lack of technical expertise and established mechanisms for public participation and consultation. Recognizing these opportunities and weaknesses, the Government proposed an integrated program which was composed of an IBRD-financed Native Forests and Protected Areas Project and a Global Environmental Facility (GEF)-financed Biodiversity Conservation Project (BCP). Specifically, the IBRD-financed Native Forests and Protected Areas Project (Loan 4085-AR) pursued these issues by enhancing the policy, legal and regulatory framework governing native forests, by addressing information constraints to the sustainable use of native forests and conservation of biodiversity, and by supporting the modernization of APN as a national parks management entity. GEF support of the Biodiversity Conservation Project complemented these objectives by making possible the formulation of an integrated and balanced approach to improved conservation of natural habitats containing biodiversity of global significance.

The semi-blended IBRD Native Forest and Protected Areas Project (NFPA) (Ln. 4085 Ar.) had two components; Native Forests (Comp. A) and Protected Areas (Comp B.). Component B was executed by APN and was the main link between the IBRD and the GEF Project. Component B had two subcomponents: (a) Plan for Modernizing APN and (b) Infrastructure Development and Management Strenghtening of the Selected Parks. Under the Protected Areas Component, APN prepared a plan to modernize the institution, as well as finance specific infrastructure developments and strengthening of management in four selected parks in Patagonia, including the strengthening of APN's regional technical office. These parks (Nahuel Huapi, Lanin, Glaciares, and Los Alerces) are the major revenue-generating protected areas managed by APN and the most heavily visited.

1.2 Original Global Environment Objectives (GEO) and Key Indicators (*as approved*)

The project was conceived prior to the use of the Results Framework later employed by the Bank. The overall objective of the project was to conserve biodiversity of global importance; the specific objectives were to: (a) expand and diversify the existing National Protected Areas System (NPAS) to include several of the country's most globally significant but inadequately protected ecoregions, and (b) create the conditions for their sustainable management through investments in institutional strengthening, refined mechanisms of consultation and participation, and improved biodiversity information management.

The project objectives align with the objectives identified with for each of the three components of the project, described below in Section 1.5. Impact indicators were developed for each of the objectives. Specific performance indicators were also developed during preparation.

Development Objective	Impact Indicator
Component A – New Protected Areas	
D.O.1Increased protection of biodiversity in ecoregions of global importance. (Effective management of new Pas) (Increased protection for key indicator species)	Increased provincial presence in provincial reserves around federal Protected Areas. Fewer disturbances and incursions into PAs (illegal extraction of resources). Stable populations of selected indicator species at Year 1 of the project.
D.O.2 Promotion of sustainable use of biodiversity in areas adjacent to Protected Areas	Adoption of sustainable land use practices by non-participants in the project, measured by changes in land use patterns.
D.O.3 Increase public participation in the creation and protection of each Protected Area Mitigation Plan	Development of local groups and public activities that uphold the objectives of the Protected Areas. The majority of Consultative Commissions (CCs) members satisfied with the level of participation in CCs. Creation of CCs in other provincial and national Protected Areas. Income levels of affected families

	reestablished/improved, and families satisfied with the effectiveness of mitigation measures.
Component B – Biodiversity Information System	
D.O. 4 Increase access to biodiversity data	Number of non-APN users of the system (to provide/access data) increased during the life of the program Development of a more extensive Biodiversity Information System, determined by the creation and integration of additional information nodes.

1.3 Revised GEO (*as approved by original approving authority*) and Key Indicators, and reasons/justification

(i) Key Impact indicator *"Increased provincial presence in provincial reserves around project federal PAs"* was formally changed in 2003 to read *"Increased federal and provincial presence in PAs and Provincial Reserves"*.

(Justification: The indicator was changed, as the main focus and investment of the project was in federally protected areas, not provincial reserves. Yet, no indicator to measure federal presence in PAs was included in the original Key Impact Indicators set. The changed indicator includes both federal PAs and provincial reserves.)

(ii) Key Impact Indicator *"Social organization of affected families maintained/improved"* was formally dropped.

(Justification: Field staff, APN and Bank supervision team agreed that the indicator was of limited utility for measuring key impacts of the project. The effects of social organization on the protected areas is sufficiently covered in indicators 3,4, 5 and 6. Family well-being is measured in indicators 8 and 9.)

(iii) Key Impact Indicator *"Development of a more extensive BIS determined by the creation and integration of additional information nodes"* was formally dropped.

(Justification: The indicator was unnecessary for measuring key impacts as the BIS is fully complete with the five nodes established by the project. Expansion of the system is being carried out by APN through increased functionality, improvements in technology and links with other national information providers, not through establishment of additional nodes.)

1.4 Main Beneficiaries

(original and revised, briefly describe the "primary target group" identified in the PAD and as captured in the GEO, as well as any other individuals and organizations expected to benefit from the project)

The principal beneficiaries of the project were:

- The government institutions, principally APN, responsible for the management and sustainable development of protected areas;
- Rural populations in the zone of influence (and within the protected areas in certain areas);

- Park visitors (through the provision of improved facilities, management and services in the new parks);
- The tourism sector (through new infrastructure which attracts increased numbers of park visitors to rural areas);
- The education sector (through the development of teaching materials and training programs for rural schools relative to conservation)

1.5 Original Components (*as approved*)

The project had three components: (A) Protected Areas; (B) Biodiversity Information Management; and (C) Management, Monitoring and Evaluation. Total project costs at appraisal amounted to US$ 21.6 million; US$ 10.1 GEF (originally expressed as US$ 7.3 million SDR in the Grant Agreement), US$ 11.1 from GoA and US$ 0.4 form from buffer-zone grant beneficiaries.

Component A - Protected Areas (base cost US$ 20.3 million, US$ 9.3 million from GEF, US$ 10.6 million from GoA and US$ 0.4 million from beneficiaries).

The general objective of this component was to support the establishment and consolidation of five new protected areas in poorly represented ecosystems of recognized global importance. The selected areas were: (a) Los Venados (an area in San Luis Province identified as the largest remnant of relatively intact Pampas); (b) San Guillermo (in San Juan Province, the southernmost extension of the Central Andean Dry Puna); (c) Copo (in Santiago del Estero Province, one of the last pristine areas of Semi-Arid Chaco in Argentina); (d) Quebrada del Condorito (in Córdoba Province, an area including a part of the Córdoba Montane Savannas, an ecoregion endemic to Argentina); and (e) Monte León (in Santa Cruz Province, an area of Patagonian Steppe and littoral and wetland habitat). Selection was made based on evaluation criteria applied to 32 potential areas. A team of local and international biodiversity experts confirmed the significance of the selected sites in terms of: (a) their global importance for biodiversity conservation; (b) the degree of threat to the ecoregion; and (c) a complex of factors related to investment feasibility (e.g., provincial interest, cost of land purchase, support of local communities, and other institutional considerations.) There were three sub-components:

Subcomponent A.1. Establishment and consolidation of new protected areas (US$ 15.9 million base cost, US$ 6.7 million from GEF and US$ 9.2 million from GOA). The project supported the establishment and management of five protected areas in the selected sites, for which the management strategy was based on a policy of strict protection, but with provisions for the possibility of low-impact visits. Following the completion of legal establishment and land acquisition, livestock should be gradually eliminated from the parks and park rangers should be hired to manage visitor use and to control access, poaching and other types of illegal activity. It was planned that these rangers would also conduct basic inventory and monitoring activities, paying special attention to key indicator species. Moreover, the project developed partnerships with the local scientific community to monitor the effects of park management on flora and fauna. As such, the project financed: (a) technical assistance for boundary demarcation, drafting of legal documents, preparation and implementation of operational plans, implementation of environmental assessments and other specialized studies and activities associated with the establishment and management of these areas; (b) limited equipment; and (c) small works (construction of observation points, interpretative trails, fencing, administrative offices, interpretative center and park ranger residences, and one road repair).

Subcomponent A.2. Sustainable Development Activities in Buffer Zones (US$ 1.4 million base cost; US$ 0.9 million form GEF, US$ 0.1 million form GoA and US$ 0,4 million from beneficiaries). The project supported improved community land-use practices through pilot projects, studies, and support to extension activities. Pilot activities consisted of financing a variety of small activities (e.g., the testing of improved land management models, recovery of degraded natural grasslands, fire management, and the implementation of complementary biodiversity studies) that contributed directly to the sustainable use and conservation of biodiversity in PA buffer zones. This subcomponent also supported awareness-building activities aimed at local communities living in and around the parks, thereby helping to increase local knowledge of, and support for, the parks themselves. In most cases, funding for this sub-component was made available on a competitive, cost-sharing basis to NGOs, universities, and government agencies working in collaboration with local landowners or rural communities. GEF funding was used to cover the incremental costs of the sub-component.

Subcomponent A.3 Public Participation (US$ 1.8 million base cost; US$ 0.7 million from GEF and US$ 1.1 million from GOA). As an essential part of project preparation, an extensive stakeholder participation and consultation process was implemented with representatives of federal and provincial institutions, NGOs, rural families, local farmers, community organizations, and universities. This subcomponent played a central role to ensure broad public participation in the creation, protection and management of each protected area. This has been done through the formulation of a Participation Plan and a Mitigation Plan and their implementation for people who might otherwise have been adversely affected by park establishment. Social mitigation costs included training for alternative employment, employment in park management activities, and improved housing and living conditions for the people who would continue to live in the parks. GEF funding was used to cover the incremental costs of this sub-component while GoA financed the Mitigation Plan.

Component B - Biodiversity Information Management (US$ 0.6 million; US$ 0.5 million from GEF and US$ 0.1 million from GoA): The objective of the component was to provide decision makers (national and international) with ready access to information for decision making relative to conservation and the sustainable use of biodiversity. The project considered the ability to access and exchange information on Argentina's globally important biodiversity as an essential tool for effective management and protection. This was achieved by putting into place an internet- based biodiversity network, enabling worldwide access to to Argentine biodiversity information.

The component financed the development of prototype nodes within APN and provided the training and standards needed to extend the network nationally and internationally. The project financed system development, limited hardware acquisition, and reconfiguration of existing databases. A major thrust of the component was a training sub-component to ensure the sustainability of the first -node within this emerging network. The component consisted of (a) promotion of the Biodiversity Information System (BIS) at the national level, (b) development of the BIS software, (c) adaptation of existing data bases to the BIS, and (d) capacity building and training. GEF support of US$ 0.5 million was proposed to finance the incremental costs of the component.

Component C – Management, Monitoring and Evaluation (US$ 0.6 million base cost; US$ 0.5 million from GEF and 0.1 million from GoA). This component financed technical assistance, equipment and incremental operational costs needed to strengthen the capacity of the implementing agencies to manage the overall program. It also supported scientifically sound monitoring of biodiversity at globally significant Protected Areas sites.

1.6 Revised Components

Not applicable (no revisions)

1.7 Other significant changes
(in design, scope and scale, implementation arrangements and schedule, and funding allocations)

During execution of the Project, four amendments to the grant agreement were made (July 2003, December 2003, February 2005, and June 2006) as follows:

i) On July 11, 2003, at the request of APN, the percent of expenditures financed by the GEF for "goods" and "works" disbursement categories were modified to increase the percentage of GEF resources required from 88% to 100% for "works", under disbursement category (1)(a); from 82% to 100% for "equipment", under disbursement categories (1) b), (4)(a) and (5)(a). This helped to boost implementation, as lesser amounts of scarce counterpart funds were required for implementation. It also enabled the project to take advantage of the tax exemption in effect in Argentina for procurement of goods and services carried out using funds provided by international cooperation (Argentine Law no. 23.905). Finally, it helped to streamline the procurement process, as payments under categories with 100% GEF financing were not required to be processed with counterpart funds (which require a separate internal routing and authorization). (The effect of this amendment was demonstrable and implementation picked up substantially as a result.)

ii) The second amendment (December 17, 2003), requested by the Bank, was to change the grant amount, which had previously been recorded in Special Drawing Rights (SDR), into United States dollars.

iii) The third amendment (February 17, 2005) approved the tables of adjusted Project monitoring indicators. (see Section 1.3)

iv) The fourth amendment (June 26, 2006), requested by APN, was to add a sixth protected area (Mburucuyá National Park), reallocate funds, and modify the percentage of expenditures financed by the GEF for the "Grants" disbursement category (This helped to expedite the administration and disbursement of funds to subprojects, by using only one funding sources).

In 2005, APN conducted a comparative analysis of options for incorporating an additional protected area into the Project. Once complete, they provided a justification for inclusion of the highest ranking candidate from their analysis, Mburucuyá, to the Bank, along with detailed analyses of other alternatives. Following a review of the request and field mission by the supervision team, the Bank's Lead Ecologist conducted a site visit and an assessment using the WWF tracking tool to determine its suitability for inclusion in the project. Social and environmental assessments of the park and surrounding area were carried out by APN -- both were found to be acceptable by the Bank (and the social assessment recognized as a best practice). Based on the assessments, good registration with the project objectives and the justification provided by APN, it was concluded that the area was an excellent candidate for inclusion in the project.

Mburucuyá is located primarily in the Humid Chaco, an ecosystem identified at appraisal as having globally significant biodiversity, and insufficient protection. The area has a range of ecological conditions and vegetation due to the convergence of three different ecoregions: hygrophytic forests associated with the Parana Forest ecosystem; Chaco forests, primarily *Schinopsis spp. and Prosopis spp*.); and yatay (palm) savannas and Mesopotamian-type wetlands (including 104 lagoons and 8,000 ha of marshes and streams, in an excellent state of conservation). The protected area is home to 13 threatened species of vertebrates and 27 endemic species of flora. In addition, it contains extremely important grasslands, prioritized for conservation as *Valuable Grassland Areas in the Pampas and Plains of Argentina, Uruguay, and Southern Brazil* (D. Bilenca and F. Miñarro. J.M. Kaplan Fund-FVSA 2004.

Institutional arrangements

The Biodiversity Conservation Project was designed to be executed by the National Park Administration (APN), a semi-autonomous agency within the Secretariat of Natural Resources and Human Environment (SRNyAH). Following a series of institutional reorganizations in the environment areas, in 2001 APN was transferred to the Ministry of Tourism. No negative impacts were incurred as a result of this transition.

Project Extensions

The project had one extension for twenty-one months, to March 31, 2008, in order to complete the established goals and incorporate a *New Protected Area*, Mburucuyá National Park, (MNP) into the project. Impacts of the fiscal and political crises of 2001 – 2003 on the project had slowed progress during those years. However, following the crisis the project had recouped its momentum and showed good signs that it could successfully accomplish its objectives, providing it was granted the additional 21 months – which proved correct.

Amendment of Disbursement Category Allocations –

Two of the amendments signed had the purpose of modifying the percent of expenditures financed by the GEF of select disbursement categories (July 2003 and June 2006) and reallocation of funds between categories (June 2006). The following funds reallocations were authorized:

- *Works,* disbursement category (1)(a) – increased from US$ 3,140,685 to US$ 4,040,685;
- *Goods,* disbursement category (1)(b) – increased from US$ 1,106,850 to US$ 1,332,850;
- *Consulting Services,* disbursement category (1)(c) – decreased from US$ 1,328,220 to US$ 1,156,220;
- *Operating Costs,* disbursement category (1)(d) – decreased from US$ 1,369,726 to US$ 387,726;
- *Consulting Services,* disbursement category (2)(a) – increased from US$ 110,685 to US$ 237,685;
- *Grants,* disbursement category (2)(b) – increased from US$ 747,123 to US$ 914,123;

- *Operating Costs*, disbursement category (2)(c) – decreased from US$ 83,014 to US$ 20,014;
- *Consultant Services*, disbursement category (3)(a) – increased from US$ 262,877 to US$ 271,877;
- *Training*, disbursement category (3)(b) – decreased from US$ 442,740 to US$ 57,740;
- *Operating Costs*, disbursement category (3)(c) – decreased from US$ 27,671 to US$ 4,671;
- *Goods*, disbursement category (4)(a) – increased from US$ 96,850 to US$ 134,850;
- *Consultant Services*, disbursement category (4)(b) – increased from US$ 262,876 to US$ 423,876;
- *Training*, disbursement category (4)(c) – decreased from US$ 69,178 to US$ 32,178;
- *Operating Costs*, disbursement category (4)(d) – increased from US$ 41,507 to US$ 82,507;
- *Goods*, disbursement category (5)(a) – increased from US$ 13,836 to US$ 15,336;
- *Consultant Services*, disbursement category (5)(b) – increased from US$ 456,575 to US$ 604,575;
- *Operating Costs*, disbursement category (5)(c) – increased from US$ 27,671 to US$ 42,671;

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design and Quality at Entry

(including whether lessons of earlier operations were taken into account, risks and their mitigations identified, and adequacy of participatory processes, as applicable)

Project Preparation

The Bank team was composed of protected areas, biodiversity, information systems, social, and public participation specialists and other technical experts. The FAO CP played a very important role in providing technical experts to work side-by-side with national counterparts in project formulation. The project was well conceived and had a sound technical design that targeted the issues and constraints derived from the sector review report.

Lessons learned and incorporated

The design of the project was based on GEF-related experience from Argentina and on the larger information base derived from other relevant projects supported under the GEF Pilot Phase and other related environmental protection projects in Latin America.

The only completed GEF-financed project in Argentina was the Patagonia Coastal Zone Management Plan Project (CZMP). The main lessons derived from the CZMP project included: (a) the need to build on a strong, established organizational base; (b) project preparation and implementation should be carried out to the maximum degree possible through the use of local experts; and (c) the education of decision makers and the population generally on the role of and need to conserve natural habitats is vital to develop support for managing protected areas sustainably.

The key lessons derived from other GEF-funded biodiversity projects elsewhere in Latin America, that had been also generally corroborated in the November 1995 World Bank report,

Mainstrearning Biodiversity in Development: a World Bank Assistance Strategy for Implementing the Convention on Biological Diversity, and by the 1996 Bank report *GEF Pilot Phase Portfolio Project Implementation Review* were fully taken into account during the formulation of the BCP.

Rationale for Bank and GEF Involvement:

The project was the Bank's first GEF- funded project aimed at improving the conservation of biodiversity of global importance in Argentina. The BCP provided a vehicle for pursuing one of the three pillars of the 1995 CAS for Argentina: rebuilding infrastructure (including addressing environment issues) by improving environmental management and protection. In particular, the Project supported the in situ conservation and sustainable use of biodiversity, a key objective of the Convention on Biological Diversity, consistent with the GEF Operational Strategy for Biodiversity and with all four GEF Biodiversity Operational Programs.

The proposed national parks for GEF assistance were selected to protect arid and semi-arid ecosystems (the Pampas, the Central Andean Dry Puna, and the Patagonian Steppe); forest ecosystems (Córdoba montane savannas and the Chaco); mountain ecosystems (the Puna), and coastal, marine, and freshwater ecosystems (littoral and wetland Patagonian habitats). The project was consistent with the Conferences of the Parties (COP) guidance on conservation and sustainable use of vulnerable ecosystems and species; capacity building, including human resource development and institutional strengthening; and innovative measures to conserve biodiversity, including government-private partnerships for land management. Furthermore, the Biodiversity Information Management component was designed to contribute to the Argentine National Information Management responsibilities as defined in the Convention on Biological Diversity.

Project design

One important factor contributing to the project's success was the decision to base the project's design on the comprehensive Argentine Forest Sector study of 1993 (No. 11833-AR). The sector work concluded that the Bank can be of great assistance to the government in helping it to develop and to implement an appropriate state role in the conservation and management of natural habitats. The project's success demonstrates the importance of carrying out a sector review to identify issues and constraints in the early stages of preparation.

Risk Assesment

The risks identified during the preparation were i) lack of awareness by local decision makers concerning the need for ensuring the long-term sustainability of the protected areas to be created through the project and ii) limited involvement by and support from provincial governments regarding biodiversity conservation, due to lack of financing.

To mitigate the first risk, both the project design and activity implementation emphasized local public consultation processes and participation of stakeholders at each of the proposed protected area sites. Consultative commissions were created at each area, including participatory workshops to support public participation in the development of park management plans.

One of the selection factors applied to the proposed protected areas considered for inclusion in the project was the existence and degree of provincial support, which partially mitigated the second risk. In addition, sustainable development and training activities were included for residents of the provincial buffer zones around each national park included in the project.

When the Project was formulated, the San Guillermo Protected Area had a specific risk linked to the mining exploration permits valid in the buffer zone adjacent to the park. The law (No. 24.585/95) requires environmental impact studies to be done prior to exploitation. These studies must be approved by provincial authorities and include mitigation measures. During Project implementation, both APN and the Bank supervision team carried out activities to evaluate the possible impacts of mining activities in the Park's influence zones (Veladero and Pascua Lama, both of Barrick Gold Corp. of Canada).

In September 2005, the supervision mission visited San Juan and met both provincial authorities, the UnderSecretary of Mining and the Undersecretary of the Environment, and the on-site managers of Barrick, including their Vice President, Legal Counsel and Medical Director, to learn more about the monitoring, control and mitigation measures being employed at the mines. The mission also visited CIPCAMI (*Centro de Investigación para la Prevención de la Contaminación Minero Industrial*) (a provincial technical center with state-of-the-art water quality monitoring equipment and personnel trained and financed by the Japanese Government).

CIPCAMI and Barrick reported they had been carrying out independent water-quality monitoring of the Las Taguas, Cuesta del Viento and San Juan El Palque Rivers. Both of the water monitoring programs reported they had yet to detect any problematic contamination from the mines. The project financed a followup study, *"Physical and chemical water quality monitoring of the Blanco River between Junta de la Palca and Cuesta del Viento Dam"* to assess the threat of contamination from the mines and to determine the adequacy of both Barrick's EIA, as well as their monitoring programs (and CIPCAMIs). The study identified technical areas where the EIA could be improved. APN followed up with the Secretary of Mining and the Province concerning the findings and is now working with the Province to determine best locations for new water monitoring stations that include park's concerns. The Secretary of Mining has also followed up with Barrick and made recommendations for improvements to its EIA and mitigation efforts.

Borrower Commitment

To achieve the Project's objectives, a strong commitment from APN was fundamental, both from technical personnel and from authorities, particularly PIU staff. APN showed a high commitment to the project and worked diligently with provincial authorities in the creation of the parks. Given that this was only the second project with external financing in APN, initially there were some minor issues associated with the administrative flow of counterpart funds. However, they were eventually resolved through the use of a revolving account for each park (established within APN).

2.2 Implementation
(including any project changes/restructuring, mid-term review, Project at Risk status, and actions taken, as applicable)

Project activities were initiated in August 1998 at a good pace. While disbursements were slow initially, due to the time lag between procurement of lands and the implementation of site activities in the new parks, progress was considered satisfactory up until the midst of the political and economic crisis of 2001 - 2003.

The economic crisis eventually took a toll on the project's execution and the project was considered at risk, as was most of the Argentine portfolio. In 2003, the project was downgraded to unsatisfactory, due to a slowdown in work and corresponding disbursement lag. With 50% of

the population haven fallen below the poverty line, the government was compelled to shift scarce funds from line agencies to avert or mitigate social crises. Consequently, across the board budget cuts were experienced in the project and sector.

However, with assistance from the Bank team, the agencies made successful appeals for additional funding to the Ministry of Economy and Production and the President's Chief of Cabinet. In addition, the Bank agreed to an amendment of the grant agreement to increase the percentage of GEF resources required from 88% to 100% for "works", under disbursement category (1)(a); from 82% to 100% for "equipment", under disbursement categories (1) b), (4)(a) and (5)(a). This helped to boost implementation, as lesser amounts of scarce counterpart funds were required for implementation. The disbursement profile was updated, and the project began pulling ahead.

Another difficulty stemming from the economic crisis was its impact on the procurement of

Estancia San Nicolás (San Luis Province), site of the proposed Los Venados National Park. The purchase of the Estancia began in December 2000 with a down payment of 30% of the total (apx. $US 0.83 million equivalent of counterpart funds), and, in June 2001, the final payment should have been made. However, APN did not have sufficient funds on hand to complete the purchase due to budget cuts imposed during the crisis. A legal process is still underway to resolve its acquisition by APN.

Although the peso was pegged to the dollar at a 1:1 ratio at effectiveness, the peso devalued to nearly 3.6 to 1 in 2002 and remains today at about 3.1 to 1. The devalued peso, along with low rates of inflation (avg 8%) between 2003 and 2006, resulted in lower rates of disbursements in the project in US Dollars, even as the country emerged from the crisis and the project began to recover lost ground in implementation. This is because most of the project's expenditures were in Argentine Pesos and US Dollar equivalent costs were much lower after the crisis compared to the cost estimates at appraisal. The graph below shows the disbursements in US dollars before and after the crisis relative to the dollar-equivalent in pesos.

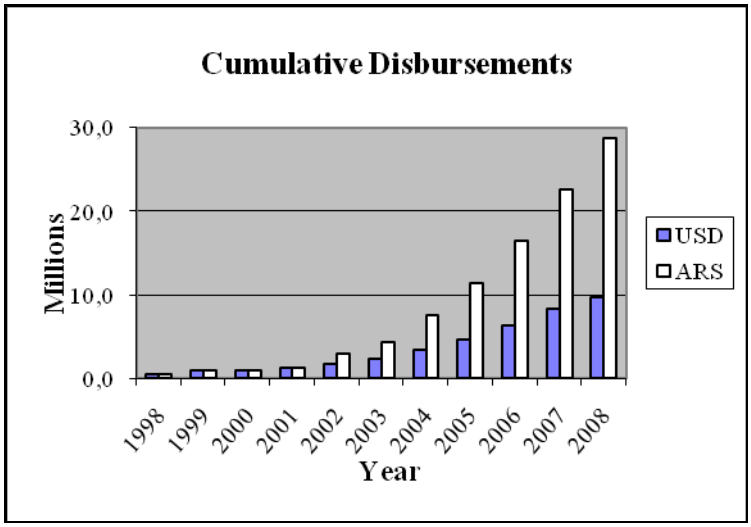


Figure 1. Cumulative Disbursements in US $ and AR Pesos

The project was implemented in a semi-blended arrangement with the IBRD Native Forests and Protected Areas Project (US $15.8 million). The two projects shared facilities, and some of the administrative costs. For example, financial management and procurement were shared between the projects. The two projects were supervised by the same National Director in APN, and were thematically complementary. The IBRD project focused on modernization of APN as a national parks entity, including major infrastructure investments in Argentina's four most highly visited national parks, while the GEF project complemented this by improving the conservation of natural habitats containing biodiversity of global significance.

During project implementation, four amendments to the grant agreement were authorized (July 2003, December 2003, February 2005, and June 2006). (See Section 1.7 for details.)

Personnel Changes - Personnel changes were incurred during implementation. However, this rarely impacted implementation, since most of the core technical staff were retained. Over the course of project implementation, the National Director for the Project changed six times.

2.3 Monitoring and Evaluation (M&E) Design, Implementation and Utilization

M&E design – The project design included performance and impact indicators to monitor the Project's activities. During implementation, one impact indicator was adjusted, and targets and methods modified for some of the progress indicators (See Section 1.3 and "Revised Targets" noted in the Datasheet).

M&E Implementation – The PIU took measurements during the entire project cycle and updated the table of performance indicators annually. During field visits at supervision missions, some of the reported measurements were verified. Most indicators were found to be very straightforward, and could be monitored without difficulty, with the exception of the species-level indicators of biodiversity. Nevertheless, biodiversity monitoring programs of indicators species were established for all of the new protected areas by closure. The first monitoring was finalized by closure in Quebrada del Condorito, San Guillermo, Copo and Monte Leon National Parks. In retrospect, it may have been more practical to monitor biodiversity at the ecosystem level with remote sensing analyses (and field checks) to determine how well habitats for the species were fairing, rather than monitor individual species.

Indicator species selected for Quebrada del Condorito include tabaquillo (*Polylepis australis*), puma (*Puma concolor*), red fox (*Pseudalopex culpaeus*) and ratón plomizo (*Akodon spegazzinii*) and vegetation at landscape level and for San Guillermo the following species were selected: vicuña (*Vicugna vicugna*), guanaco (*Lama guanicoe*), andean cat (*Oreaihurus jacobita*), European hare *(Lepus europaeus)*, ratón de las vegas (*Neotomys ebriosus*), chinchillón *(Lagidium viscacia)*, puma *(Puna concolor)*, lagartija de San Guillermo *(Liolaemus eleodori)*, lagarto de cola piche sanjuanino *(Phymaturus punae)*, burmeister´s anole *(Pristidactylus scapulatus)*, Andean flamingo (Phoenicopterus andinus) and horned coot *(Fulica cornuta)*. In Copo, the indicators were: quebracho colorado (*Schinopsis lorentzii y balansae*), vinal (*Prosopis ruscifolia*), zorro gris (Pseudolapex griseus) and insectivorous birds of branches and trunks and of foliage. Indicator specieis in Monte León include Darwin´s rhea (*Pterocnemia pennata*), guanaco *(Lama guanicoe)*, red fox *(Pseudalopex culpaeus)*, puna *(Puma concolor)*, Magellanic penguin (*Spheniscus magellanicus*), imperial shag (*Phalacrocórax atriceps*), sea lion (*Otaria flavescens*) and herbaceous and bush steppe. Indicator species monitoring showed that populations were

either stable or increasing. These findings are compatible with the high degree of protection afforded through the creation and management of the new protected areas, and backed by M&E reporting showing a decrease in disturbances in them.

M&E utilization – The PSRs and ISRs were regularly updated with the monitoring and evaluation information, which proved to be a useful tool for the team in its supervision and to provide the needed feedback and guidance to the implementing agency on where to focus its efforts. The M&E was particularly important in the post-crisis period to clearly demonstrate to high-level administrators of the line agencies areas to target for improvement. The M&E effort was the first for APN, along with The Protected Areas Component of the Native Forest and Protected Areas Project, and has demonstrated the knowledge obtained through the project by building high-quality indicator sets for the new Sustainable Natural Resources Management Project (SNRM Project).

2.4 Safeguard and Fiduciary Compliance
(focusing on issues and their resolution, as applicable)

Fiduciary

During Project implementation, there were five supervision missions by financial administration specialists from the Regional Office of the Bank: November 2002, March 2006, November 2006, April 2007 and March 2008. In all cases the conclusions were that the project's overall financial management performance was Satisfactory.

The conclusions of the FM supervision missions were that the project´s overall financial management and procurement performance was satisfactory. Some weaknesses, mainly related to the lack of timely counterpart funding, partly caused by the 2001-2002 economic crisis and because this was one of the APNs first experiences with international funding, were identified by the FM supervision mission. Time differences between the counterpart funding according to PIU project financial statements and APN budget execution system were raised by the auditors because information was not timely channeled to the PIU. However, the identified weaknesses were satisfactorily addressed by the Project Unit. However, the identified weaknesses were satisfactorily addressed by the Project Unit.

There were four procurement reviews conducted by the Regional Office Procurement Specialist, in 2006, 2007 (two) and 2008. The procurement review of 2006 included the physical inspection of works in QCNP. The second review in 2007 was a joint review with the financial management specialist, and the others were ex-post reviews. The PIU showed adequate experience in carrying out bidding processes related to civil works, but some weaknesses in the selection of consultants and goods procedures. Though overall, based on the supervision missions and ex-post reviews, the procurement performance for the project was considered satisfactory.

The project had no cases of misprocurement nor accountability issues (financial disqualification problems) in any of the financial auditing reports.

Safeguards

Environment Assessment (OD 4.01): The project was classified as category "B" as the infrastructure developments in protected areas were small and because of the low number of individuals in or around the parks. It aimed to promote improved environmental management of the new protected areas, the effects of which were designed to be overwhelmingly positive.

Infrastructure works were the main focus for environmental management and monitoring. To manage this, prior to the execution of the works, APN carried out specific environmental assessments according to the potential for environmental impacts per National Law 22.351 and APN resolution no. 16/94, which were completely consistent with OD 4.01. The requirements and administrative procedures for the assessments are outlined in APN's *Reglamento para la Evaluación Impacto Ambiental en Areas de la Administración de Parques Nacionales*. EIAs and mitigation plans were reviewed and cleared by the team's environmental specialist for the relevant works. APN performance for the reviews and environmental management was consistently complete and of high quality. The Bank supervision team included biologists and ecologists trained in the applicable Bank safeguards policies. (Prior to the incorporation of the new park, Mburucuyá, during the course of the project, the client presented an EA based on the Park's management plan, which was reviewed and cleared by the team's environmental specialist and SAT on May 26, 2006.)

Involuntary Resettlement (OD 4.30): Significant attention was devoted to ensure that the people who lived in the Quebrada del Condorito, Monte León and Copo National Parks were dealt with fairly and that they didn´t lose their capacity to support themselves. In terms of the World Bank's Operational Directive 4.30 on Involuntary Resettlement, no one was resettled due to the establishment of the parks. Persons living in the parks and supported through the project included six familes in Quebrada del Condorito, one aged (and blind) farmhand in Monte León and five families in Copo. In compliance with the Bank's policies, APN developed and implemented a *Social Mitigation Plan* during implementation that included, in addition to training and housing improvements, hiring one member of each family at Quebrada del Condorito as APN staff, processing an APN retirement for the farmhand from Monte León, and hiring two members of one family at Copo. APN's considerable experience with land purchasing carried out over the last 60 years in other parks has been non-controversial and successful. Land purchase and mitigation arrangements were in full compliance with OD 4.30 – and there was no involuntary resettlement. (In addition to the mitigation efforts, the project developed and carried out specific social participation plans/activities to involve local stakeholders in management plan development and implementation.)

During trips to supervise the Project, mission members had occasion to contact various residents of the Quebrada del Condorito and Copo National Parks. As part of the monitoring and evaluation activities, a survey was taken of the QCNP beneficiaries concerning the mitigation aspects of the project. Results were evaluated as positive because "the status of APN worker places them in the situation of having increased income and a greater choice of productive activities to engage in."

(Prior to the incorporation of the new park, Mburucuyá, the client presented an SA which was reviewed and cleared by the team and SAT on May 26, 2006. The SA confirmed there were no indigenous people in the area, and there would be no nvoluntary resettlement. It provided excellent information for the incorporation of the new park and addressing social issues in the buffer zone. The team was commended by SAT on the quality of the SA and safeguards compliance.)

Natural Habitats (OP 4.04): The protection of natural habitats was a major focus of the BCP and it was designed to have positive impacts on the environment. During the project, five new protected areas were created and strengthened, protecting five ecoregions with biodiversity of global importance. All activities under this project aimed to enhance biodiverstiy conservation, through, inter alia, creation of the protected area, sustainable activities in buffer zones, local community involvement, infrastructure works in national park areas and improved biodiversity information management. Infrastructure works in national parks incorporated Bank standards for

EA and EIA for relevant activities. APN demonstrated excellent compliance with Bank standards, and has a set of protocols for works in Parks which are comparable and applicable for all projects through its *Reglamento para la Evaluacion de Impacto Ambiental en Areas de la Administracion de Parques Nacionales*. These standards apply for all works whether or not they are financed by the Bank. Supervision missions visited each protected area during the course of implementation, and the project was consistently found to be in compliance. In the case of the access road for "Condorito" the Lead Engineer for the QAT reviewed and cleared the environmental assessment and mitigation plan, found it to be satisfactory, and recommended it as a best practice.

2.5 Post-completion Operation/Next Phase
(including transition arrangement to post-completion operation of investments financed by present operation, Operation & Maintenance arrangements, sustaining reforms and institutional capacity, and next phase/follow-up operation, if applicable)

APN has demonstrated a high level of commitment to the sustainability of the project objectives and the Project supported parks are now fully incorporated into the APN system. This includes allocation of the required levels of funding and personnel for the maintenance, care and use of the facilities and equipment provided by the project to support the its objectives to expand and diversify the existing National Protected Areas System (NPAS) into globally significant but inadequately protected ecoregions. In addition, APN has recognized the value of the actions carried out in the buffer zones with communities and individuals, and in consultative processes with stakeholders for park management, and is incorporating these instruments into their overall work program for the park system.

Next Phase:

The government of Argentina requested and obtained from the Bank financing for a new IBRD project, *Sustainable Natural Resource Management (SNRM),* that takes into account the experience with protected areas and sustainable activities in buffer zones with the GEF Biodiversity Conservation Project. In addition, discussions are underway for a new GEF project that would focus on rural corridors and biodiversity conservation needs in Patagonia and the Arid Chaco. The SNRM Project was approved by the Bank on March 18, 2008 (Loan No 7520 AR) for an amount of US $60 million and aims to improve the sustainable and efficient management of forest resources, conserve biodiversity in protected areas and forest landscapes, and integrate small producers into forestry development and conservation.

In 2005, the government developed the Federal Strategic Plan for Sustainable Tourism (PEFTS) that provides the guiding principles for the PA sector over the next few years. Under the PEFTS, national parks are considered a key element in conserving the natural resource base for sustainable economic development. The new project is also underpinned by the UN Convention to Combat Desertification and its national level implementation or national action plan (NAP), and the components for biodiversity conservation of the new project are consistent with the National Biodiversity Strategy adopted in 2003 by the Secretary of Environment and Sustainable Development (Resolution 91/03). The new project will key on these by aiming to strengthen management capacity of eleven priority protected areas and to upgrade APN's capacity in Buenos Aires. The parks to be supported through the new project were identified as having high potential, but lack the management capacity and infrastructure to provide needed levels of protection to biodiversity while serving increased numbers of tourists.

The 2006 Argentina CAS emphasizes the promotion of agricultural growth, reducing rural poverty, and improving environmental management. The CAS highlights the importance of the

forestry sector, while emphasizing that "Argentina's growth has long been, and will continue to be, based in significant part on its tremendous natural comparative advantages" (Argentina Country Assistance Strategy, May 4, 2006, Report No. 34015-AR). In this respect, the project maintains a high degree of consistency and relevance with the present CAS and concerns of the country.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation
(to current country and global priorities, and Bank assistance strategy)

The project has a **high degree of relevance** to current country priorities and to the overall Bank assistance strategy for Argentina. The project's design, objectives and implementation are completely consistent with current development priorities, including the current Argentina CAS, and that relevance is further reflected by the development and approval of a follow-on operation, the Argentina *Sustainable Natural Resource Management* (SNRM) Project. (The proposed follow-on GEF project, *Rural Corridors and Biodiversity* is presently in the concept identification and description stage.)

The Government of Argentina places a high priority on improving the management and conservation of native forests and protected areas. These sectors are the basis of significant economic activity and are the source of innumerable positive externalities which benefit the economy. Government commitment to the protected areas sector has increased, and APN's budget raised from AR$28 million in 2002 to AR$131 million in 2008.

3.2 Achievement of Global Environmental Objectives
(including brief discussion of causal linkages between outputs and outcomes, with details on outputs in Annex 2)

D.O. 1:
Increase protection of biodiversity in ecological regions of global significance

The Project's objective to preserve biodiversity of global importance by enlarging and diversifying the National System of Protected Areas and creating conditions for its permanent management was fully completed by closure. Five protected areas, encompassing 391,464 ha, were brought under full protection by the project and designated as national parks (the highest level of protection in Argentina); the Quebrada del Condorito National Park (Cordoba Montane Savanna), San Guillermo NP (Central Andean High Puna), Copo NP (Semi-Arid Chaco), and Monte León NP (Patagonian Steppe and Oceanic Patagonian Littoral) and Mburucuyá (Humid Chaco, Iberá Wetlands Ecosystem). All of these parks provide protection to ecosystems with globally important biodiversity and were poorly represented in the system of protected areas at inception. More than 300 different species of fauna have habitats in the parks, sixteen of which are threatened (Appendix I CITES)[1].

[1] First due to economic difficulties caused by the economic crisis of 2001-2003, and later because of legal obstacles, the procurement of the Estancia San Nicolás for the Los Venados National Park (Pampas Grassland) was not completed by closure. Notwithstanding, the project completed the objective of supporting the creation of five new protected areas through the formal inclusion of Mburucuyá NP to the project in 2006. The GEF-financed parks encompassed 391,464 ha of ha of high priority ecosystems at closure, compared to the target area of 358,250 proposed to be protected at appraisal (109% of target).

Conditions for the permanent management of the five protected areas have been successfully created by the project; including legal designation of the parks, infrastructure, vehicles and equipment, boundary surveys, consultative commissions, participatory involvement of local communities in subprojects and management planning, scientific studies and other actions. APN assigned the required personnel to the parks, including rangers, fire-fighters, and administrative staff. Each park now has its own operating budget through APN to ensure their sustainability and the provinces have assigned rangers to the provincial reserves to ensure conservation in the buffer zones.

The Quebrada del Condorito National Park consists of 37,364 hectares of montane savanna in the Chaco Serrano ecosystem. Five properties were purchased by APN between 1998 and 1999 for an amount equivalent to US $ 3.9 million . The Park provides critical protection for many important species including tabaquillo (*Polylepis australis*), maitén (*Maytenus boaria*), andean condor (*Vultur grypheus*), puma (*Puma concolor*), lagarto de Achala (*Pristidactylus achalensis*), red fox (*Pseudalopex culpaeus*), grey fox (*Pseudalopex gymnocercus*), gato montés (*Oncifelis geoffroyi*), Lobito de río (*Lontra longicaudis*), sapo de Achala (*Chanus achalensis*), crowned eagle (*Harpyhaliaetus coronatus*), ratón plomizo (*Akodon spegazzinii*) among others, 4 of which are threatened. Threats surrounding the protected area include overgrazing and fire. The park has 8 guards and 12 administrative personnel, as well as 4 fire fighters. The Biodiversity Conservation Project supported 21 projects in the buffer zone surrounding the park.

The San Guillermo National Park consists of 160,000 hectares of high mountain desert with herbaceous and bush steppe cover, located in the high Andean and Puna ecosystems. The property was purchased by APN in 2000 for an amount equivalent to US $ 110,000, well below its commercial value. The Park provides critical protection for many important animal species including vicuña (*Vicugna vicugna*), guanaco (*Lama guanicoe*), andean cat (*Oreaihurus jacobita*), Darwin´s rhea (*Rhea pennata*), red fox (*Pseudalopex culpaeus*), grey fox (*Pseudalopex gymnocercus*), andean condor (*Vultur grypheus*), 4 of which are threatened. Threats surrounding the park include mining and hunting. The park has 6 guards and 2 administrative staff. The Project supported 22 projects in the buffer zone surrounding the park.

The Copo National Park consists of 114,250 hectares of forest and grasslands in the Semi-Arid Chaco ecosystem. A provincial reserve was donated by the S. del Estero Province in 2000, providing the lands for the park. Although, its estimated value was not estimated for procurement, the land has a value of several million US $ equivalent. (Lands adjacent to the park are sold at amounts around US $500/ha. for farming.) With the advent of the soy boom and new high levels of deforestation in the Chaco associated with land clearing for cultivation, this park plays a key role in ecosystem conservation. The Park provides critical protection for many important species including quebracho colorado (*Schinopsis lorentzii y balansae*), quebracho blanco (*Aspidosperma quebracho-blanco*), mistol (*Ziziphus mistol*), vinal (*Prosopis ruscifolia*), tatú carreta (*Priodontes maximus*), three species of peccary (*Catagonus wagneri, Pecari tajacu, Tayassu pecari*), giant anteater (*Mirmecophaga tridactyla*), boa (*Boa constrictor*), yaguareté (*Panthera onca*), Darwin´s rhea (*Rhea pennata*), crowned eagle (*Harpyhaliaetus coronatus*), tortoise (*Chelonoidis chilensis*), 6 of which are threatened. Threats surrounding the park include deforestation for agriculture, fire and hunting. The park has 4 guards and 2 administrative personnel, as well as 2 fire fighters. The Project supported 6 projects in the buffer zone surrounding the park.

The Monte León National Park consists of 62,168 hectares of steppe and 40 km of coast in the Patagonian Steppe ecosystem and littoral and wetland habitat, and is the country's first coastal protected area. The property was donated by the Patagonia Land Trust through FVSL in 2002 for

an amount equivalent to US $ 1.7 million. The Park provides critical protection for many important species including guanaco (Lama guanicoe), Darwin´s rhea (*Pterocnemia pennata*), pichi (*Zaedyus pichiy*), zorrino patagónico (*Conepatus humboldtii*), red fox (*Pseudalopex culpaeus*), puma (*Puma concolor*), the hoarfrosted Hill´s Lizard (*Liolaemus escarchadosi*), Magellanic penguin (*Spheniscus magellanicus*), three species of shags, including imperial shag (*Phalacrocórax atriceps*), little grison (*Galictis cuja*) gaviotín sudamericano (*Sterna hirundinacea*), coscoroba swan (*Coscoroba coscoroba*), balck necked swan (*Cygnus melanocorypha*), lobo marino de un pelo (*Otaria flavescens*), peales dolphin (*Lagenorhynchus australis*), Commerson´s Dolphin (*Cephabrhynchus commersonii*), coirón (*Festuca pallescens*), Junellia (*Junellia tridens*) and green shrub (*Lepidophyllum cupressiforme*), one of which is threatened. The penguin colony, with a population of apx. 150,000, is the fourth largest in the country. Threats surrounding the park include fishing, hunting and fossil extraction. The park has 5 guards and 3 administrative personnel, as well as 1 fire fighter. The Biodiversity Conservation Project supported 8 projects in the buffer zone surrounding the park.

The Mburucuyá National Park consists of 17,682 hectares of forest, grasslands, palm savanna and wetlands in the Iberá wetlands ecosystem. Two properties were donated by Troels Pedersen to APN in 1991 and the park created in 2002. Although, its estimated value was not needed for procurement, the land has a value of several million US $ equivalent. The Park provides critical protection for many important species including quebracho colorado chaqueño (*Schinopsis balansae*), quebracho blanco (*Aspidosperma quebracho-blanco*), urunday (*Astronium balansae*), viraró (*Pterogyne nitens*), caranday (*Copernicia alba*), timbó (*Enterolobium contorticiliquum*), cañambí guazú (*Baccharis dracunculifoliael*), palmares de yatay (*Butia yatay*), jabirú (*Jabiru mycteria*), pileated parrot (*Pionopsitta pileata*), marsh deer (*Blastocerus dichotomus*), jaguarundi (*Herpailurus yaguarondi*), Geoffroy´s cat (*Oncifelis geoffroyi*), neotropical river otter (*Lontra longicaudis*), yacaré overo (*Caiman latirostris*), toco toucan (*Ramphastos toco*), great rhea (*Rhea americana*), crab-eating fox (*Cerdocyon thous*), maned wolf – aguará guazú (*Chrysocyon brachyurus*), Argentine tortoise (*Chelonoidis chilensis*), azara´s fox (*Pseudalopex gymnocercus*), capybara (*Hydrochaeris hydrochaeris*) and black howler (*Alouatta caraya*), 7 of which are threatened. Threats surrounding the park include fishing, hunting and wildfires. The park has 8 guards and 6 administrative personnel, as well as 4 fire fighters. The Biodiversity Conservation Project supported 8 projects in the buffer zone surrounding the park.

The process of creating new protected areas included procuring lands through purchase or donation, ceding the jurisdiction by the provinces to the federal government through a provincial law, and acceptance of the land acquisitions as national parks through an act of Congress. When activities began, Quebrada del Condorito NP had already been legally designated as a National Park (1996). It was followed by San Guillermo (1998), Copo (2000), Mburucuyá (2002) and Monte León (2004).

Guaranteeing institutional presence in the GEF-national parks has been a priority for APN authorities. Personnel have been consistently assigned throughout implementation, and their number has been growing. Although, the provincial reserves were slower to assign personnel, by the end of 2007, several rangers had been permanently assigned to the provincial protected areas: Quebrada del Condorito, San Guillermo, and Copo. (There are no provincial reserves adjacent to the other parks.) The following table details park rangers and support personnel as of March 2008:

Protected Area	Park Rangers (all classes) at National Park	Park Rangers at provincial reserve area
Quebrada del Condorito	8	3
San Guillermo	6	12
Copo	4	4
Monte León	5	n/a
Mburucuyá	8	n/a
Total	**31**	**19**

The following table details all APN (Federal) Park Personnel assignments in the project-financed parks, as of August 2008:

Protected Area	Park Rangers (I)	Park Rangers (II)	Fire Fighters	Administrative	Total
Quebrada del Condorito	6	2	4	12	**24**
San Guillermo	4	2	-	2	**8**
Copo	2	2	2	2	**8**
Monte León	3	2	1	3	**19**
Mburucuyá	5	3	4	6	**18**
Total	**20**	**11**	**11**	**25**	**67**

This table details the Budget assigned for 2008 by APN for the project-sponsored parks and the annual plan for the Biodiversity Information System (excluding personnel).

Protected Area	$
Quebrada del Condorito	837.050
San Guillermo	1.082.683
Copo	726.289
Monte León	742.726
Mburucuyá	612.955
BIS	71,815

A total of 39 infrastructure projects were completed with project financing, including the renovation of several existing buildings[2]. As a result, each park now has the infrastructure required for protected-area management and visitor services. Works carried out include: two dormitories for researchers in Copo NP and San Guillermo NP; two visitors' centers in Quebrada del Condorito and Monte Leon; administrative offices in Copo, San Guillermo, Monte León, and Mburucuyá; thirteen housing units for park rangers in the five parks and a number of auxiliary

[2] The infrastructure works were of very high quality. In 2006, the Argentine Central Society of Architects (CSA) and the Professional Council of Architecture and Urbanism (PCAU) presented their national award for the Best Institutional Architecture to the Copo National Park Administrative Center during its 11th Bi-annual national competition. (The headquarters at Copo received honorable mention in the competition.) The works were both esthetic and highly innovative, as they were adapted to the harsh conditions and very high temperatures found in the Chaco ecosystem.

structures including sheds, stables, and parking lots. The access road to Quebrada del Condorito was also built. Counterpart funds were used to repair trails and overlooks and do other small repairs. Twenty-four works were planned, and thirty-seven were completed by the end of the Project (125% completion against target values). For more detail, see the list of works for each PA in Annex 2. In addition, each park was provided with vehicles and equipment (for maintenance, camping, GPS, firefighting, AV and IT equipment).

To increase scientific knowledge and improve management of the Project's protected areas, numerous scientific studies were carried out (see Annex 2 for list). These studies stand out: baseline biodiversity studies with associated monitoring plans; participatory creation of management plans; environmental evaluations of proposed works; an audiovisual program to disseminate information relative to the "new GEF-supported parks"; new components that were finalized in the process of institutional transformation; and infrastructure development at the parks.

In conclusion, the development objective of increased protection of biodiversity in ecoregions of global importance was completed. The parks were strengthened through a new and improved institutional presence, protected-area management planning, scientific studies and monitoring of biodiversity, construction and/or renovation of infrastructure, and provision of vehicles and equipment.

D.O. 2: Promotion of sustainable use of biodiversity in areas adjacent to protected areas

Sustainable use subprojects in the buffer zones were key tools for involving local communities, families and individuals in activities that support the parks' conservation objectives. During the course of the project, 568 families living near the parks participated in 65 sub-projects, along with other stakeholders. Buffer-zone subprojects were received with great enthusiasm by the beneficiaries, and the individual park's staff acknowledged their importance in helping to improve conservation, and involve stakeholders in park management objectives. By ensuring that the buffer zone areas adjacent to parks are more sustainably managed the core protected areas are better protected. Sub-projects also helped to sensitize local farmers, students and landowners relative to the importance of conservation and the environment. Thematic categories for subprojects were (i) sustainable production, (ii) applied studies, and (iii) training. Specific themes eligible for each park were identified and prioritized through a socio-economic analysis in park buffer zones. APN promoted the participation of local stakeholders and conducted an open request for proposals to ensure broad participation.

Productive subprojects (21 total) helped to diversify farming systems and make them more compatible with the surrounding ecosystems. Themes included beekeeping, agriculture with native species, fruit and vegetable farming, rearing of small animals, production of photovoltaic energy, water, and eco-tourism services. The subprojects helped strengthen the process of community organization among the beneficiaries as many were executed by groups or communities, which increased the likelihood of their sustainability.

Applied-study subprojects (12 total) covered research themes such as factors affecting livestock production, surveys of exotic species, local knowledge of flora and fauna, water quality and others. Several of the applied studies systematized disparate information about natural resources and are the basis of research theses in Universities, particularly in biological disciplines. Many of the studies published their results and bibliographies for use as teaching material. Cooperative efforts carried out in the project have helped to stimulate partnerships between the parks and other organizations for future efforts as well.

Training subprojects (32 total) covered themes including animal health, environmental education, local use of native plants, and others. Training projects included support for the organization and institutional strengthening of local groups, the creation and management of producer associations, participative resource management, and the identification and formulation of project proposals. Some productive activities were developed in parallel with training events to ensure that residents had the knowledge as well as the resources to complete the work. In addition, the project carried out training in marketing and social organization. Teachers and students received training which helped to increase their awareness of natural resource conservation and sustainable use.

Type of Subproject	QC	SG	C	ML	Mb	Total
Applied Studies	5	5		2		12
Productive Development	9	10	2			21
Training	7	7	4	6	8	32
Total Subprojects	**21**	**22**	**6**	**8**	**8**	**65**
Families Involved (Productive Development)	**125**	**322**	**70**		**51**	**568**

(Annex 2 describes the subprojects in detail.)

The physical progress of subprojects was approximately 400% of the target objectives, and park personnel and beneficiaries showed a high degree of appreciation for them. In the opinion of APN park/project staff working in the program, subproject activities have improved conditions in the ecosystems around the parks and the relationship with the stakeholders in the area. As a result of the successes in the GEF project, APN has decided to include buffer-zone subprojects in the new IBRD operation (*Sustainable Management of Natural Resources*, loan 7520 AR) in 11 other parks.

D.O. 3: Increase of public participation in the creation and protection of each protected area

One key tool for conserving biodiversity is the involvement and active participation of local stakeholders associated with the protected areas (those that live in the area or engage in activities related to the protected area). Because ecosystems extend across frequently arbitrary park boundaries and land holdings, to conserve biodiversity local land owners and other stakeholders need to participate in their creation and protection. Park-specific approaches were developed for public participation, and included establishing and operating consultative commissions and sponsoring training events. Consultative Commissions were created for each of the five areas involved and a total of 53 commission meetings were held.

Participation and Mitigation Activities	QCNP	SGNP	CNP	MLNP	MNP	Total
Public Participation – Consultative Commissions	15	6	17	12	3	53
Social Mitigation – Mitigated Residents	5	0	2	1	0	8

The Consultative Commissions addressed issues including: defining internal regulations; technical assistance, participation and priority setting for subprojects; participatory development of management plans; assistance and participation of technical studies; workshops for training and information dissemination; and evaluation of monitoring plans. During the project, 15 specific workshops were held to provide local stakeholder feedback to proposed park management plans. The workshops helped to address social, economic, conservation and livelihood issues in and around the park and ensured their consideration in the final plans. Participants included APN, residents, technicians, and local government officials. Surveys of Consultative Commission members (2003-2008) in QCNP, SGNP, and CNP indicated a high level of satisfaction by participants. At closure, the commissions in QCNP and SGNP were transformed into Local Advisory Commissions or *Comisiones Asesoras Locales* (CAL), APN's own version of the GEF consultative commissions.

Within the framework of the project and in compliance with Bank regulations (DO 4.30) and APN policy, a mitigation plan was implemented for residents living within the created parks. This plan included training and small improvements in housing, incorporating one family member into the local APN park staff (QCNP), hiring and later processing retirement benefits for a farmhand in MLNP, and hiring two members of one family in Copo to work for APN as park staff. Results from surveys of QC residents (2003-2006) showed mitigation plan participants were satisfied with the mitigation measures and income levels through their participation in the plan. APN has a policy of no involuntary re-settlement, and remained in compliance throughout the project.

This development objective has been fully achieved, and exceeds the targets established at appraisal.

D.O. 4: Increase access to biodiversity data

At the close of the project, the Biodiversity Information System (BIS) was complete and on line at www.sib.gov.ar. The following information is now available through the site; 3,196 source documents, 227 maps, 458 species photographs, and information about 24,267 species, subspecies, and varieties of flora, 13,842 species of fauna, 2,081 of mushrooms, and 244 of bacteria and cyanophytes. The information is fully accessible to both internal and external users through the internet. The BIS website has over 75,000 visitors a year.

The BIS is organized into five geographic nodes. Each is responsible for data entry and database management of regional information, and website management. The main (headquarters) node is of national scope and is overseen by the National Directorate of Conservation of Protected Areas in APN. The other four are of regional scope and are overseen by the four Regional Delegations: Patagonia, Central, Northwest (NOA), Northeast (NEA) and Casa Central (Headquarters). Each node possesses basic computer equipment for data entry (alphanumeric and spatial), processing, and dissemination of information through the BIS website. Each node has three technical specialists, one leader and two for data entry and GIS.

Nodes collect, organize, review, quality control and enter data/information about the protected areas' biodiversity for its respective geographic area; the information is later transferred to the Internet. The BIS supports query functions to support information needs/analyses of the Regional Delegations and other APN users. Various databases include information on public use in park areas, residents, biological surveys (flora and fauna), land registries, fires, etc. and can be linked to support complex analyses or queries.

As a result of the project, in November 2007 (APN Resolution No 548/2007) the BIS organization and management structure was approved, defining the system's primary objectives and responsibilities. Since that time, the BIS project has been operating with APN resources, which, together with the incorporation into APN, 12 former project staff, assures its sustainability and growth. The website currently has an average of 6,521 visitors per month and an average load of 1.5 to 2 GB. Under APN's direction the BIS is still growing and several new activities are now underway, including development of a new webpage with improved accessibility; continued database development and new intra- and inter-operability for external and internal users.

This development objective has been completely achieved, the BIS is fully functioning, supported by APN, and has compiled an impressive amount of biodiversity information which is being used extensively by APN and external audiences (100% of target value). The system's sustainability is assured through the financing and support of APN. The BIS has its own annual budget, operational and long-term plans that guarantee its continued growth and development. The Biodiversity Information Management component contributes to the Argentine National Information Management responsibilities as defined in the Convention on Biological Diversity.

3.3 Efficiency
(Net Present Value/Economic Rate of Return, cost effectiveness, e.g., unit rate norms, least cost, and comparisons; and Financial Rate of Return)

During the project appraisal, an economic and financial analysis for the GEF project was not carried out due to the nature of the project – strict biodiversity conservation with limited visitation, as opposed to economic (eg. tourist) development. However, it was agreed at closure that it would be meaningful to conduct such analyses in order to gain insight into the fiscal impacts of the parks, and the extent to which they would be sustainable over time.

Cost effectiveness. The project established five national parks and outfitted them with modern infrastructure, equipment and trained personnel needed to ensure their startup and long-term sustainability. It also established a state-of-the-art biodiversity information system on the internet, which has approximately 75,000 visitors annually. The economic benefits of the project were (i) strengthening and expansion of the national protected area system, (ii) improvement of tourism services through modern park facilities, (iii) the deployment of a biodiversity information system useful for planning and system maintenance of the national parks administration, and (iv) the protection of biodiversity and environmental goods and services; including water, soil and bio-carbon assets.

Efficiency. The principal beneficiary is the government agency, APN, responsible for managing the national parks system. The procurement and management of five parks provide for increased biodiversity conservation in high priority ecosystems of global importance in Argentina. Along with the biodiversity, valuable environmental goods and services in and around the park are also being conserved. This includes the protection of watersheds and wetlands (San Guillermo, Quebrada de Condorito and Mburucuyá), which are important to help regulate water quality, quantity and regimen; protection of soils (Copo, Condorito and Monte Leon), which are prevented from degradation and depletion due to unsustainable cropping and overgrazing; and forests (all areas except Monte Leon) for carbon storage and the regulation of greenhouse gasses. The total area placed under conservation, 391,464 ha, was accomplished at an est. cost of apx. US $58 per ha, including land purchases. Excluding land purchases the costs are about US $43 per ha.

Costs of conservation are a function of many variables; stakeholder consultations, boundary demarcation, land purchase, construction of infrastructure, compensation and planning (Brunner,

Gullison and Balmfold 2004). In addition, the complexity of the ecosystems; frequency, severity and intensity of threats; and the size of area (needed to achieve economies of scale) influence the costs. Because of the wide range of situations, there are no global standards that can be used to measure the efficiency of the project. This said, however, the indication is that the project was *highly efficient* when comparing costs of conservation to, for example, establishment costs of other land uses; with costs of US ~$800 per ha for forestry establishment and US ~$300+ per ha for establishment of grains in Argentina (excluding land, maintenance and harvesting costs).

The BIS has increased the efficiency of APN in many of its system planning and park management activities. This was accomplished by compiling, digitizing and making available a wide range of information on biodiversity and related issues relevant for park managers and administrators to support APNs goals. The BIS supports internal and external queries and enables users to quickly and efficiently find and analyze biodiversity information. In the preparation of the follow-on IBRD project, APN and the Bank preparation teams used the BIS extensively to identify relevant information on protected areas and their biodiversity, threats, and other issues needed to support the formulation effort.

*Financial Analysis.*The five protected areas supported by the GEF project focused on strict biodiversity conservation with limited visitation in five high-priority ecosystems: Cordoba Montane Savanna (QCNP), Central Andean Dry Puna (SGNP), Semi-arid Chaco (CNP), Patagonian Steppe (MLNP) and Humid Chaco-Iberá Wetlands (MNP). At closure, the project had succeeded in placing 391,464 ha under strict protection. The infrastructure investments realized through the GEF project improved the conservation and management of the areas, and helped to "graduate" the parks to comply with APN criteria for charging admissions, and therefore generating revenue. At the end of the project, over 16 thousand people visited the GEF-financed parks each year (excluding SGNP). By comparison, visitation rates were effectively zero at inception, as the parks did not exist. Had APN charged admission to the parks in 2007, the gross income would have been around US $36 thousand. This is however offset by annual operating costs of about US $1.3 million. Consequently, it is no surprise that, as stand alone parks, each of the GEF-financed protected areas was shown to have negative FIRRs. (The best FIRR was for QCNP at -4 percent.) On the other hand, as part of the blending arrangement with the IBRD-financed parks, and as part of the overall APN system the GEF-financed activities are considered to be fully sustainable over time.

Increased revenues generated from the IBRD operation more than offset the operating costs associated with the new GEF financed parks, indicating the blending arrangement was the correct approach. IBRD-financed parks generated over US $ 25 million annually by closure, representing over 50 percent of total park revenues. The protected areas component of the sister-Native Forests and Protected Areas project focused on four high visibility parks in Patagonia: Lanin, Los Alerces, Nahuel Huapi and Glaciares that total 2.1 million hectares; around 75% of the parks system coverage at the time of appraisal. The infrastructure investments realized through the IBRD project enhanced the quantity and quality of infrastructure and services available at the four parks, and improved the visitors' experience. Revenues and visitation rates increased significantly at each.

Revenues from the four (IBRD) parks supported under the Native Forests/Protected Areas project rose significantly from US $5.6 million in 2000 to US $25.3 million in 2006. As a percentage of total park revenues for 2000 and 2006, those figures represent a jump from 35 percent to 53 percent, respectively.

The financial analysis results and comparisons are as follows:

IBRD Project Parks	FIRR At Appraisal (%)	FIRR at ICR (%)
Lanin	16	13
Nauel Huapi	13	32
Los Alerces	36	8
Los Glaciares	11	57

In conclusion, as a result of the blending with the IBRD operation and the incorporation of the GEF project parks into the overall APN system, the goal of ensuring the five new parks are sustainable over time is considered successful. This finding is further substantiated by the fact that each of the 5 Project-supported parks is now receiving annual allocations from APN (see table below), who has assumed all associated costs of the parks from the GEF[3].

Annual operating budgets for target Parks, 2008:

GEF Project-Financed Protected Areas	2008 Budget (US $)
Quebrada del Condorito	270,016
San Guillermo	349,253
Copo	234,287
Monte León	239,589
Mburucuyá	197,727

3.4 Justification of Overall Outcome Rating
(combining relevance, achievement of GEOs, and efficiency)
Rating: **Satisfactory**

The project achieved all of its development objectives. The 2006 CAS reaffirms the relevance of those objectives. The establishment of the five new national parks ensures the protection of 391,464 ha. All these parks belong to ecoregions with globally important biodiversity and were poorly represented in the system of protected areas at inception. More than 300 different species of fauna have habitats in the parks, sixteen of which are threatened (Appendix I CITES). High quality infrastructure works, with designs appropriate to each environment, were completed in all of the new parks. Sustainable activities in buffer areas contributed directly to the sustainable use and conservation of biodiversity and involvement and participation by stakeholders was high. Argentine biodiversity information is now available on the internet. Although the duration of the project was long (9 years, 9 months), the project was approved with an 8 year timeframe, based on the standard disbursement profile for Argentina at the time of appraisal. Moreover, the 21 month delay was largely due to the impacts of the economic crisis, which could not be predicted at appraisal. The project should therefore be considered **satisfactory**. Achievements were high by the project and continue to provide positive impacts and externalities.[4]

[3] In 2008, APN's budget increased by AR$40 million over the previous year to AR$131 million with important additions in field personnel and infrastructure investments.

[4] While the last ISR rated the project *moderately satisfactory*, a Quality Enhancement Review (QER) for the ICR (Sept. 18, 2008) concluded that this rating was low based on the project's high achievements. The QER recommended an overall rating of *satisfactory*.

3.5 Overarching Themes, Other Outcomes and Impacts

(if any, where not previously covered or to amplify discussion above)

(a) Poverty Impacts, Gender Aspects, and Social Development

Not applicable

(b) Institutional Change/Strengthening

(particularly with reference to impacts on longer-term capacity and institutional development)

The creation of new protected areas, including new infrastructure, provision of equipment and technical studies have strengthened APN by increasing the area and quality of protection the institution provides to high priority ecosystems. APN has fully incorporated the parks into the protected area system, assigned personnel to manage them, and provides for their long-term financing. The 2008 APN budget has increased by AR$40 million over the last year to AR$131 million with important additions in field personnel and infrastructure investments. Infrastructure investments have improved the visitor experience, providing improved opportunities for greater financial sustainability of the parks through revenues generated by tourism.

The development of sustainable activities with local producers and communities in the buffer zone areas of the parks was an innovative for APN, who has now embraced it and is replicating it in the new project with the Bank (Sustainable Natural Resource Management Project, Ln 7520 Ar.) in the 11 protected areas.

The Biodiversity Information System developed by the project is a completely new tool for APN and has helped to increase institutional efficiency and improve the Administration's planning and management of protected areas. The BIS was completely absorbed by APN at closure, who has taken over the responsibility for technical planning/management and the financing of personnel needed to maintain the system and help it grow. The BIS is widely available to APN personnel and external users, and is also helping the country to meet its commitments under the Convention on Biological Diversity.

(c) Other Unintended Outcomes and Impacts (positive or negative)

The project highlighted the need for increased protection of grasslands, which helped to promote the incorporation of *Campos de Tuyu*, a private grasslands reserve, into the APN system.

4. Assessment of Risk to Development Outcome

Rating: **Low**

The risks to development outcome are low given that the support for the project's activities has been embraced, fully supported and financed by the government. The country approved new legislation for the formal transformation of newly procured lands into national parks, and the provinces approved corresponding legislation to support the transformation. The "national park" designation provides the highest level of protection to the biological resources of the area. In addition, the consultative commissions, which involve non-APN stakeholders and communities in park management decisions, have helped to ensure that development outcomes are supported by the surrounding populations. The Biodiversity Information System is up and running; has a long-term plan for development; and is fully financed by APN. Sustainable development activities are being supported in other APN parks.

5. Assessment of Bank and Borrower Performance

(relating to design, implementation and outcome issues)

5.1 Bank Performance

(a) Bank Performance in Ensuring Quality at Entry
Rating: **Satisfactory**

The Bank's performance in identifying, preparing and appraising the operation was satisfactory and the resulting project was highly pertinent to both Bank and country priorities. The Bank conducted an appropriate diagnosis of the current state of important biodiversity issues, threats and alternatives for confronting them, highlighting the need for a highly participative process, fundamental for a country with diverse environmental systems and potentially conflictive natural resource management issues. The Bank correctly focused its efforts on strengthening the physical and human resources of the protected areas in critical ecosystems. The performance of the Bank staff and technical teams in ensuring quality at entry was highly satisfactory, as it collaborated proactively on issues which arose during preparation. The project was reviewed by the Quality Assurance Group in 2004 and was rated "highly satisfactory" for its focus on development objectives.

(b) Quality of Supervision
Rating: **Satisfactory**

Two task managers managed the project. The Bank team developed a strong collaboration with the Borrower. The team's experience and technical quality contributed substantially to the success of implementation and monitored the progress. On average, supervision missions were carried out two or three times a year with 21 supervision missions in total. (The 2004 QAG Review of Supervision rated supervision overall as *satisfactory*.) The combined knowledge of the Bank team in addressing similar environmental problems in other countries and situations strengthened, enriched, and helped to guide the project's evolution. The FAO-World Bank Cooperative Programme (FAO-CP) made strong contributions to project supervision as well providing key technical supervision that would not have otherwise been available.

During the financial crisis, the Bank team worked diligently with the PIUs to keep the project from failing, when counterpart resources were sharply reduced. The project was one of few Bank-financed projects that made progress and received at least some government counterpart funding during that time. To help mitigate the effects of shortages of counterpart funds, in 2003 the team processed an amendment to increase the percentage of GEF resources required for implementation from 88% and to 100% for "Works", from 82% to 100% for equipment. This had a very positive impact on the project, and helped to boost implementation during the crisis as lesser amounts of scarce counterpart funds were needed to fund the project activities.

(c) Justification of Rating for Overall Bank Performance
Rating: **Satisfactory**

In consideration of the ratings for preparation and supervision (above), the overall rating is considered satisfactory. In addition, the 2004 Quality of Supervision Assessment noted, *"…[that] the panel felt that the solid prospects of achieving the DO … against a backdrop of economic crisis is in no small measure the result of a well-focused project design, a realistic assessment of what progress could be made, as well as a capable and diligent supervision team."*

5.2 Borrower Performance

(a) Government Performance
Rating: **Satisfactory**

In general, the Government of Argentina supported project preparation and implementation. They gave priority to conservation, and collaborated with all work required by the Bank. During the crisis years the government provided counterpart funds to the extent possible, and helped the line agencies when called upon to do so. The federal government, including the President, Senate and the national congress, approved the new laws required to form the national parks, as did the provincial governments.

(b) Implementing Agency or Agencies Performance
Rating: **Satisfactory**

The PIUs were composed of qualified technical professionals and administrative staff. Based on the number and diversity of programs, subprojects, and activities implemented under the project and supervised by the PIU, it was highly efficient in its work. They also collaborated with the National General Auditor in project audits, and incorporated comments received into its operations.

Collectively, the PIU staff demonstrated a high degree of dedication to their work and during the project's lifetime conducted 58 workshops, and processed over 400 separate contracts (for consultants services,and works). During the crisis, APN was able to maintain the project staff, who prevented the project from failing.

(c) Justification of Rating for Overall Borrower Performance
Rating: **Satisfactory**

Overall borrower performance is considered satisfactory given the level of government commitment during the project's tenure to provide the funding for execution, satisfactory performance of the line agencies, including the high levels of results obtained and the high sustainability of impacts generated. There were no cases of corruption, misprocurement nor safeguards violations during the project's tenure.

6. Lessons Learned

(both project-specific and of wide general application)

Wide General Application:

Lesson One: Development is not a linear process, and processes need to be sufficiently flexible to adapt to changes on the ground. Although the project experienced some setbacks, including delays and difficulties during implementation, it managed to produce highly relevant impacts for the protected area sector by closing. The Bank, as an institution, should ensure that its instruments, philosophy and approaches to development are flexible enough to adapt to the changing country conditions, while maintaining focus on the project development objectives.

Lesson Two: The creation of a protected area is a complex process that involves diverse actors and requires substantial coordination. In future projects, sufficient time should be allocated

according to the complexity of participatory processed and taking into account the number of actors and decision makers involved. This is especially important in situations where a diverse spectrum of stakeholders are concerned (private land holders, intermediary agents, stakeholders, federal and provincial governments). Participation is critical at all levels, yet it is time consuming and the outcomes are unpredictable.

Lesson Three: Monitoring and evaluation of biodiversity should be carried out at ecosystem levels. Biodiversity can be assessed at either the ecosystem, species or genetic levels. Because of the operational nature of GEF- and IBRD-financed projects, the use of highly detailed scientific studies is not always feasible. The use of ecosystem evaluations, through, for example, remote sensing surveys, can help to determine the extent to which habitats for key species are being protected. This can be a more practical approach than, for example, monitoring indicator species themselves, which entails costly and difficult field surveys.

Project Specific:

Lesson Four: Local participation in the management of protected areas is a key tool for enhancing conservation. The project generated local participation through the consultative commissions, training events, validation workshops and sustainable use subprojects. Persons in the buffer zone areas showed a high degree of interest in participating and their involvement is considered key to ameliorating threats along the protected area borders, and contributing positively to the protection and integrity of the ecosystems targeted for conservation.

Lesson Five: Because local populations rarely are organized under formal charter organization and "intermediary agents" not found in many remote areas, project implementation arrangements must be sufficiently flexible to correspond to the reality on the ground. Frequently qualified organizations needed to assist local populations in buffer-zone subprojects do not exist in the remote areas, which are frequently the site of conservation activities. Seed funds should be made available for formulation of sub-project activities and their use should be sufficiently flexible to attract qualified intermediary agents to participate in remote rural areas. Sub-project development costs, including travel-related expenses, need to be covered by the seed funds.

Lesson Six: Administrative processes should be agile and compatible with the capacity of beneficiaries and intermediary agents involved in sub-project activities. Administrative processes associated with sustainable use (buffer zone) activities need to be kept simple, as most rural beneficiaries and some intermediary agents are not likely to have experience in funds management. Participants may require training to handle funds. Co-mingling government and project funds can complicate disbursements and should be avoided.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

(a) Borrower/implementing agencies

Comments on Draft ICR from The National Parks Administration (APN):

Comment 1:

APN: The project constructed four rangers quarters in Monte Leon, not two as indicated in the draft report.

***Bank comment**:* APN has verified that four rangers' quarters were built in Monte Leon NP by the project, and this has been corrected in the final version of the report.

Comment 2:

***APN*:** The total number of consultative commission workshops/meetings held was 53 (not 57 as indicated in the draft report), as follows: 15 in Quebrada del Condorito, 6 in San Guillermo, 17 in Copo, 12 in Monte León, and 3 in Mburucuyä.
Bank comment: APN has verified that there were 53 consultative commission meetings and the final report has been amended to include this.

Comment 3:

APN: There were two Task Managers during the course of the project, not three.
***Bank Comment*:** Agreed. The quantity of "three" appeared in the summary of the APN report in order to reflect the accuracy of APN reporting. However, this has now been amended in the final version of the ICR.

Overall Comments/Summary:

APN considers the project and ICR acceptable and the project as satisfactory. A summary of their report is found in Annex 7.

(b) Cofinanciers

(c) Other partners and stakeholders
(e.g. NGOs/private sector/civil society)

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in US $ Million equivalent)

Components	Appraisal Estimate (US $ millions)	Revised Estimate (US $ millions)	Actual/Latest Estimate (US $ millions)	Percentage of Latest Appraisal
Component A. Protected Areas				
(a) Establishment and Consolidation	15.9	16.1	13.1	81
(b) Sustainable Development Activities	1.4	1.7	2.1	124
(c) Participation and Training	1.8	1.4	0.5	37
Component B. Biodiversity Information Management	0.6	0.8	1.1	140
Component C. Management, Monitoring and Evaluation	0.6	0.9	1.0	112
Baseline Costs	20.3	20.9	17.8	85
Physical Contingencies	0.4			
Price Contingencies	0.9			
Total Project Cost	**21.6**		**17.8**	**82**
Project Preparation Fund	0.3		0.3	
Total Financing Required	**21.9**		**18.1**	**83**

*Land costs were an additional US $5,710,000

Financing

Source of Funds	Type of Co financing	Appraisal Estimate (US $ millions)	Actual/Latest Estimate (US $ millions)	Percentage of Appraisal
Component A				
Recipient		10.4	6.4	62
Global Environmental Facility		8.3	8.3	100
Beneficiaries		0.4	1.0	250
Subtotal		19.1	15.7	82
Component B				
Recipient		0.1	0.44	440
Global Environmental Facility		0.5	0.65	130
Subtotal		0.6	1.09	182
Component C				
Recipient		0.1	0.13	130
Global Environmental Facility		0.5	0.84	168
Subtotal		0.6	0.97	162
Physical contingencies		0.4		
Price contingencies		0.9		
Project Preparation Fund		0.3		
Grand Total		21.9	17.78	81
Recipient		11.1	6.97	63
Global Environmental Facility		10.4	9.84	95
Beneficiaries		0.4	1.0	250

*Land costs were an additional US $5,710,000

Annex 2. Outputs by Component

Component A

1. Infrastructure works developed in each new national park

Quebrada del Condorito National Park

1. Renovation of two houses (Casa de Piedra y Puesto de Achala)
2. Visitors Center
3. Two houses for park rangers
4. Stable
5. Storehouse
6. Renovation of two patrol cabins at Trinidad
7. Footbridge over Condoritos River
8. Renovation of the access road (2,5km)

San Guillermo National Park

Rodeo:

1. Visitors Center with administrative office
2. Two houses for park rangers
3. Renovation of one house
4. Storehouse

Agua del Godo (in the park):

1. Control Post
2. Renovation of facilities for investigators
3. Control
4. Two houses for park rangers

Copo National Park

Pampa de los Guanacos

1. Administrative office with visitors area
2. Superintendent's house

In the Park

3. Operative Center in El Aybal (east sector)

Pobladores Area (south sector):

4. Investigators refuge
5. Reception Office and public lavatories
6. Storage house
7. Stable - Robles Area (northwest sector)
8. Control Post
9. Parking
10. Installation services
11. Fences

Monte León National Park

1. Visitors Center
2. Four houses for park rangers
3. Administrative office
4. Public toilets
5. Personnel refuges
6. Installation services

Mburucuyá National Park

1. Reception and administrative office
2. Visitors Center
3. Public toilets
4. Installation services

2. Technical studies

Quebrada del Condorito

1. Baseline study and monitoring plan of the biodiversity of Quebrada del Condorito National Park (PN Quebrada del Condorito) and Pampa de Achala Hydric Provincial Reserve (RHP Pampa de Achala), IMBIV, 2003.
2. Management Plan of PN Quebrada del Condorito and RHP Pampa de Achala, Centro Regional Office, APN, 2004.
3. Assessment of the current situation of the puma, red fox and human conflicts at PN Quebrada del Condorito and RHP Pampa de Achala in relation with tourism and livestock predation, Mónica Pía, 2004.
4. Fish population diversity survey and monitoring of native and exotic fish species in the conservation unit, Jael Dominino, 2005
5. Pilot Project for reintroducing guanacos into the PN Quebrada del Condorito, Tavaronne, 2005
6. Monitoring of biodiversity baseline of PN Quebrada del Condorito y la RHP Pampa de Achala, Fundación Conservación y Desarrollo, 2008.
7. Socio Economic and Productive Assessment of population and communities in the RHP Pampa de Achala, Daniel Cáceres, 2001.
8. Sustentability indicators for monitoring productive systems at the RHP Pampa de Achala, Daniel Cáceres, 2002.
9. Social and productive description of comunities in the northern part of the pobladores RHP Pampa de Achala, Daniel Cáceres, 2004.
10. Sustainable technologies. Adoption by producers at the RHP Pampa de Achala, Daniel Cáceres, 2006.
11. Monitoring program for small farmers in the RHP Pampa de Achala (2002-2006), Daniel Cáceres, 2006.
12. Monitoring Program, PN Quebrada del Condorito and RHP Pampa de Achala, Marcelo Cabido et al. 2008.

San Guillermo

1. Baseline study and monitoring program of the biodiversity of the San Guillermo National Park (PN San Guillermo) and San Guillermo Biosphere Reserve, Universidad Nacional de San Juan, 2007.
2. Preparation of an educational strategy and supporting written material (handbook and leaflets), Centro Regional Office, APN, 2007.
3. Management Plan for the PN San Guillermo and Biosphere Reserve, Centro Regional Office, APN, 2007.
4. Monitoring of the physic-chemical quality of the Rio Blanco water between Junta de la Palca and the Cuesta del Viento dam, Santiago Reyna, 2008.
5. Socio Economic and Productive Assessment of population and communities in the area of influence of PN San Guillermo, Esteban Tapella, 2004.
6. Diagnostic of the Tourism Potential of the Area of influence of PN San Guillermo, Aylen Mereta, 2004.
7. Experiences on development of sustainable activities with people from QCNP and SGNP, Esteban Tapella, 2007.
8. Educational strategy for the Management Plan of PN San Guillermo, preparation of a handbook for instructors and a hand out, Centro Regional Office, APN, 2007.
9. Monitoring of landscape, ecosytems and community indicators in San Guillermo Biosphere Reserve, Sebastaian DeMartino. 2008.
10. Monitoring of Animal Biodiversity Indicators in San Guillermo National Park, Emiliano Donadio. 2008.

Copo

1. Baseline study and monitoring plan on the biodiversity of Copo National Park (PN Copo), Universidad de Salta, 2003.
2. Assessment of the current situation of the conflict “jaguar/puma” – human activities at PN Copo and its buffer area, Pablo Perovic, 2003.
3. Management Plan for CNP and a proposal for the provincial reserve area, Silvia Chalukian et al, 2004.
4. Baseline of the cultural resources of PN Copo and the Copo Provincial Reserve, Universidad de Tucuman, 2007.
5. Monitoring of biodiversity, Pablo Perovic et al, 2008.
6. Socioeconomic diagnosis of land use in the buffer area of PN Copo, Miguel Brassiolo, 2002.
7. Identification of sustainable land units in the Copo Provincial Reserve – Mitigation Area of the PN Copo, 2005.

Monte León

1. Management plan for the future Monte León National Park (MNPonte León), Patagonia Regional Office, APN, 2002.
2. Biodiversity baseline study and monitoring plan of marine avain fauna of PN Monte León, Academic Unit of Caleta Olivia, Universidad Nacional Patagonia Austral, 2004.
3. Biodiversity baseline study and monitoring plan of guanacos and Darwin´s Rhea of the PN Monte León, Fundación Patagonia Natural, 2004.
4. Biodiversity baseline study and monitoring plan of sea mammal of PN Monte León, Fundacion Patagonia Natural, 2005.
5. Monitoring of carnivorous populations. Proposals to reduce conflicts between native animal populations and livestock surrounding PN Monte León, Fundación Patagonia Natural, 2005.

6. Basic information and monitoring plan of the archeological resources of PN Monte León, Department of Prehistorical and Archeological Research, IMHICIHU, CONICET, 2005.
7. A plan for archeological recovery in different sites of PN Monte León, Universidad Nacional Patagonia austral, Academic Unit Río Gallegos, 2005.
8. Baseline study describing the richness and paleontological diversity of the PN Monte León, Facultad de Ciencias Exactas y Naturales, Universidad Nacional de la Pampa, 2006.
9. Baseline study and monitoring plan of the vegetal biodiversity of the PN Monte León, Experimental Station of Santa Cruz, INTA, 2006.
10. Baseline study describing the geologic-geomorphologic coastal dynamic of PN Monte León, Jorge Coldignotto, 2006.
11. Baseline study and monitoring plan of the biodiversity of the sea environments adjacent to PN Monte León, CENPAT, 2006.
12. Baseline study and monitoring plan of terrestrial vertebrates for the PN Monte León, 2006.
13. Remedial plan for the areas currently affected and in danger to suffer river erosion en PN Monte León, Kokot, 2007.
14. Basic historical information on ships in MLNP coasts. Instituto Nacional de Antroplogía, 2007.
15. Current status of the different biodiversity monitoring activities in PN Monte León, Patagonia Regional Office, APN, 2008.

Sustainable Development Activities in buffer zones

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
PAMPA DE ACHALA HIDRYC PROVINCIAL RESERVE (RHPPA, QUEBRADA DEL CONDORITO NATIONAL PARK BUFFER ZONE)					
Productive subprojects					
QC 07/01	Rural Houses, alternative tourism	34,897.00	6 families and the "El Manantial" school	The planned constructions were built. Only two (2) were destined to be used for tourism.	Fundación Ideas
QC 08/01	San Mateo - La Ventana	53,098.00	26 families	Improvements in productive infrastructure: lodging for tourism, craftwork, shelters for sheep, fencing and division of paddocks, garden fencing, chicken coops, greenhouses, 2 buildings, 2 shelters, 1,100 meters of fencing, 5 gardens, and 1 chicken coop	APENOC (Asociación Productores del Noroeste de Córdoba)
QC 09/01	Cerro Hermoso - Martín Fierro	59,926.25	18 families	Improvements in productive infrastructure: 4 gardens with fruit trees, 2 goat shelters, paddocks were fenced, 5 storehouses for working on and storing craftwork were built, and improvements in housing for rural tourism in 8 housing units.	APENOC
QC 10/01	Ceferino Namuncurá	59,686.00	17 families	Improvements in productive infrastructure: 4 gardens with	APENOC

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
				fruit orchards, 1 greenhouse, 2 chicken coops, 1 field with a wire fence, 2 goat shelters, and improvements in herds. Built 1 storehouse and supplies for craftsmen. Built rooms for rural tourism in 8 housing units. Purchased 4 horses and accoutrements for tourism services.	
QC 11/01	Potrero de Gero - Río Los Sauces	59,999.25	21 families	Seven gardens with fruit trees and 1 greenhouse were installed. In the livestock area, sanitary posts were established along with building 4 goat shelters and fencing 3 paddocks. In terms of craftsmen, 5 storehouses were built for craftwork and storage. In terms of rural tourism, 4 rooms and 3 bathrooms were built, along with 3 enclosed galleries.	APENOC
QC 03/02	El Manantial	48,660.00	10 families from the Northern area of the RHPPA	Paddocks were fenced and fruit trees and gardens were established, and small water taps for each family were built thereby ensuring water supply to the housing units.	CARITAS
QC 04/02	Volcán I	48,147.00	10 families from the Northern area of the RHPPA	Fenced fields and corrals were enlarged, tanks for irrigation were installed, and animals received parasite treatments.	CARITAS
QC 05/02	Volcán II	48,656.00	10 families from the Northern area of the RHPPA	One thousand meters of fencing, 9 corrals, 500 meters of water pipes, 4 new water taps, and 9 gardens were installed.	CARITAS
QC 06/02	Los Gigantes	48,675.00	10 families from the Northern area of the RHPPA	Eight gardens, 9 fields for goats and sheep, 7 paddocks for pasture reserves, and 300 meters of fencing per domestic unit were established.	CARITAS
Training subprojects					
QC 12/01	Craftwork with wool and fiber from domestic camelids	17,027.00	42 residents participated in 13 training events (which took place at various sites)	Ten English combs, 5 tables, 10 spinning wheels, table looms, llama wool, and sheep wool were provided. Training was provided on the extraction of natural dyes and the recovery of autochthonous designs.	Programa SUPRAD, Facultad de Ciencias Agropecuarias, Universidad Católica de Córdoba

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
QC 15/01	Reforestation of the Sierras Grandes of Córdoba	18,304.61	Training educators and 105 students at 3 schools: "Nuestra Señora del Valle," "Martín Fierro," and "Ceferino Namuncurá."	Reforestation of the sites of 3 schools (1 to 2 hectares). Various teaching materials on the subject were produced. The largest input involves the educational sphere and working with teachers and students regarding protecting the environment and the rational use of resources.	Asociación Civil Los Algarrobos
QC 16/01	Children's view of the environment through puppets	9,786.00	Approximately 50 students from the school "Ceferino Namuncurá"	Puppet workshops were successfully carried out with teachers at the school Ceferino Namuncurá; these workshops incorporated concepts linked to the QCNP. As a product of the effort, a documentary was put together that was sent to 14 schools in the Sierra area.	Fundación Facultad de Folosofía y Humanidad
QC 17/01	Community organization of the central area of the RHPPA	11,556.00	Over 80 families in the central area of the RHPPA (San Mateo, La Ventana, Cerro Hermoso, Martin Fierro, Protrero de Gero, Rio Los Sauces, Ceferino Namuncurá)	Technical and productive training on marketing and on the management and collective administration of craft sales. As a result of the effort, the "Organization of the Community of Artisans and Producers of Pampa de Achala" was formed.	APENOC
QC 04/04	Bases for developing monitoring and self-management of marketable wild plant resources in the RHPPA	18,328.90	The beneficiary population was smaller than planned due to lack of interest in the subject.	The objectives of identifying threatened species of vegetation and defining collection and processing strategies were met. However, there was little participation from residents. This could be due to the lack of pre-investment work.	Fundación Ecosistemas Argentinos
QC 05/04	Healthy animals healthy families	15,000.00	230 students and 30 teachers at the 13 schools in Pampa de Achala	The principal objective was to eliminate echinococcosis in the region and to keep it free of brucellosis in goats. A book (152 pages) was prepared for teachers and 6 booklets (16 pages) were prepared for students, and 300 copies of each were printed.	Universidad Nacional de Córdoba
QC	Environmental	12,446.40	10 teachers	Twenty-seven educational	Fundación

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
07/04	workshops in rural schools in Achala		and 100 school students of the RHPPA	workshops were carried out at the RHPPA school. Students and teachers were provided with ideas about biodiversity in the mountains. In addition, teachers and students worked on the reforestation of two area schools. All the planned objectives were reached.	Ecosistemas Argentinos
Applied studies					
QC 18/01	Study on the production of camelids	30,700.00	3 families (direct producers) from the departments of San Alberto and Sa Javier.	In total, 51 animals were distributed. Although various adverse situations occurred, livestock management improved. Ideas about adequate management were established.	Programa SUPRAD, Facultad de Ciencias Agropecuarias, Universidad Católica de Córdoba
QC 22/01	Sustainable Development of Tourism in Pampa de Achala	22,050.00	Originally the entire population of the RHPPA would have benefitted.	The planned objectives were not reached, so the project was ended earlier.	FAOS (Fundación Alternativa Ocupacional Social)
QC 23/01	Historical anthropological studies about the community of Pampa de Achala	9,772.00	Families from the RHPPA.	The first objective (establish the landholding system) was not recognized as necessary by the residents, for which reason the necessary information was not provided. The second objective (history of culture and identity) was completed with a fair amount of success, involving the population. The third objective (organizing a local market) was met by creating and establishing norms for how the sales stall functions in the La Posta area.	APENOC
QC 24/01	Studies on goat and sheep production factors	26,450.00	Families in Cerro Hermoso and La Ventana	It was determined that the goat population in the entire area is free of brucellosis. This added value to the cheese produced from their milk. Information was collected about problems with zoonoses.	APENOC
QC 06/04	Survey and control of exotic species in the RHPPA zone	18,815.00	All residents of the Southern zone of the RHPPA	The objectives of surveying the presence of exotic species and reviewing the bibliography on control and eradication methods. Educational workshops were provided to	APENOC

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
				180 students, parents, and teachers.	
SAN GUILLERMO NATIONAL PARK ZONE OF INFLUENCE					
Productive subprojects					
SG 12/03	Provision of photovoltaic electricity in rural areas	17,653.00	6 families in Carrizal and Tudcum	The objective was met by installing solar panels for 6 families, allowing electricity to be generated and stored in a special battery that can later be used through a regulator. This provided electricity and improved quality of life and production. The availability of electric light means that new activities could be incorporated (cleaning and classifying seeds, spinning wool, leather and wood craftwork, and making preserves).	Dirección de Recursos Energéticos and Unión Vecinal Tudcum
SG 13/03	Biogas for rural areas	6,743.00	6 families from Carrizal and Tudcum	Six biodigesters were installed to produce methane gas from manure from the corrals. However, given the complexity of managing the system, only two families achieved an adequate level of effective use, using them for lighting and to cook. In addition, low temperatures had a negative impact because fermentation is more intense during the summer. Because of this, the objectives were partially met.	Dirección de Recursos Energéticos and Unión Vecinal Tudcum
SG 01/05	Manos de Los Andes	58,063.00	35-40 producers from the communities of Angualasto and Tudcum who work in traditional trades	Equipment, tools, and supplies were provided to optimize the quantity and quality of craftwork. There were improvements in threads, design, dying with natural dyes (from native plants), and finishing and presentation of projects. Work was also done on cost analysis, value of garments, and setting prices.	Unión Vecinal de Tudcum
SG 02/05	Cuyana Hospitality	60,000.00	9 families from Tudcum.	Tools, equipment, and supplies were provided in order to improve infrastructure. Five lodging services were established along with 1 dining room, 1 delivery service, and horses for outings and	Unión Vecinal de Tudcum

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
				excursions.	
SG 05/03	Family beekeeping project in the Valles Iglesianos	63,987.40	17 families in Tudcum	All of the proposed objectives were met: the residents learned about and initiated a sustainable productive activity. There were three honey harvests, which were marketed. Contact was made with the cooperative of Bee Producers and they obtained a local registered trademark for their product, "Cumbre de Tudcum." The establishment was approved and registered with Public Health.	ASPA (Asociación Sanjuanina de Productores Apicolas)
SG 06/03	Family beekeeping project in the Valles Iglesianos	42,143.00	4 families in Angualasto (and the Angualasto school) and 3 families from Maliman (and the Maliman school).	All of the proposed objectives were met: the residents learned about and initiated a sustainable productive activity. There were three honey harvests, which were marketed. Contact was made with the cooperative of Bee Producers and they obtained a local registered trademark for their product, "Cumbre de Tudcum." The establishment was approved and registered with Public Health.	ASPA
SG 16/03	Strengthening the small agricultural production systems in Tudcum	60,667.00	23 families (a total of 125 residents) in Tudcum.	Through the project, Tudcum residents living in poverty have achieved increased food security in addition to creating small surpluses that are marketed. They have done this by strengthening productive activities that they had already been developing on a small scale.	INTA
SG 17/03	Strengthening the small agricultural production systems in Angualasto, Colangüil and Maliman	48,742.00	13 families (a total of 55 people) in Angualasto, Colangüil, and Malimán.	The entire production system was oriented to organic production with a low level of soil disruption. Productive activities included producing potatoes from virus-free seeds, planting fruit trees, sowing alfalfa, reaping and baling machines, draft horses, raising pigs, and producing milk, cows, sheep, and goats (including the production of cheeses).	INTA
SG	Strengthening	53,897.00	14 families (a	To strengthen the livestock	INTA

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
18/03	the small farming systems in Angualasto, Colangüil, and Maliman		total of 62 residents) in Angualasto, Colangüil, and Maliman.	production systems, draft animals (horses) were purchased and distributed as well as breeding animals (cows and goats). Tools such as ploughs, hoes, and animal traction toothed rakes were also provided, along with alfalfa and vegetable seeds for family gardens. The subproject is considered to have met the planned objectives.	
SG 19/03	Development of family farms in Tudcum, Angualasto, Colangüil, and Maliman.	58,490.00	23 families (a total of 99 residents) in Angualasto, Colangüil, Maliman, and Tudcum.	The project involved 23 families and was aimed at increasing farm production. Some families were interested in pig production and others were interested in poultry farming. The provision of farm animals, tools, draft animals and their harnesses, and alfalfa and vegetable seeds was included. The most important achievement was to increase food security.	INTA
SG 20/03	Strengthening the farming systems in Tudcum	62,073.00	15 families (a total of 60 residents) in Tudcum.	This group included goat, sheep, and cattle producers. They were trained in establishing pastures for feed, animal health, and sowing pastures. Work animals, breeding cattle and sheep, plows and toothed rakes, grass mowers, balers, seeds, and wire for perimeter fences were distributed.	INTA
SG 21/03	Strengthening milk production in the irrigated area of Tudcum	35,611.00	10 families (a total of 37 residents) in Tudcum.	The first step was to provide training about installing pastures, livestock management, and use of milk. Wire was provided to fence perimeters, replacing branch fences. Work animals and traction tools were also provided (ploughs and toothed rakes), seeds for pastures (alfalfa), and dairy cows when feed was available. This activity was of significant help to families' budgets.	INTA
Training subprojects					
SG	Encouragemen	16,093,00	24 residents	The subproject managed to	ASPA

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
07/03	t and development of beekeeping in the Valles Iglesianos		who participated in the subprojects SG 05/03 and SG 06/03, in addition to students at the schools in Angualasto and Tudcum.	create a group of small bee producers, incorporating the knowledge necessary for the production process of honey. The group of producers is in the process of consolidating and growing, with the goal of providing a high-quality product to satisfy local tourist demand and eventually develop alternative markets.	
SG 11/03	Appreciation of natural and cultural resources and local history	30,381.00	123 children in school levels EGB 2 and 3, in Tudcum, Angualasto, Maliman, and Colangüil.	The planned objectives were fully met: a space was provided for children to reflect on the value placed on natural resources, their preservation, and their rational use. It also led to the construction of identity by recovering community knowledge (through oral, written, and body expression).	Asociación Quillay para la Promoción y el Desarrollo Rural
SG 10/04	Strengthening of civil society organizations	27,700.00	Residents of Tudcum, Maliman, Angualasto, and Colangüil.	The objective was to strengthen civil society organizations. There was progress in the process of providing training about the dynamics of civil society organizations, participation, decision-making styles, resource management, etc. In three of the locations included in the work program, effective progress was made in creating and consolidating social organizations.	Facultad de Ciencias Sociales, Universidad Nacional de San Juan.
SG 03/05	Recovery and encouragement of craft working heritage	31,777,00	Those craftsmen who participated in the subproject SG 01/05 and interested residents of neighboring communities.	The project's objective was met, because the project managed to successfully encourage young craftsmen to recover traditional craft working techniques, place higher value on their products, and promote their activity. Work was also done to register the garments under their own brand, "Manos de los Andes." In addition to training them about improving quality and product presentation, materials, booklets, and leaflets were created regarding product design and marketing.	Unión Vecinal de Tudcum

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
SG 04/05	Strengthening and integration of tourism services offered in the Iglesias area	31,079.00	Producers; providers of lodging, food, and/or recreation; local craftsmen; and other people interested in developing (or already carrying out) tourist activities in the area.	Steps were taken through training workshops in which, in addition to those participating in production projects, all residents interested in developing some type of tourist activity could participate. The workshops were aimed at providing knowledge about customer service, quality control, and increasing cooperation among parties affected. The project generated an important process of raising awareness and appreciation of the area's resources and potential.	Unión Vecinal de Tudcum
Applied studies					
SG 01/03	Study on alternative sources to improve water availability in Angualasto	30,723.23	Approximately 70 families in the Angualasto community.	The principal objective was clearly achieved: alternative canals were established to provide the region with water. There is a high probability that the provincial government will implement the knowledge gained.	Fundación Universidad Nacional de San Juan
SG 14/03	Study on flora resources in the Andean valleys from a participatory investigation	37,420.00	Local residents, students, and teachers in the Angualasto and Tudcum areas.	The objectives were to collect and systematize the community's knowledge about flora resources and determine collection and propagation techniques, as well as plants' uses as medicine, food, dyes, and for aroma, among other uses. This valuable information was collected in a book with high quality appearance and content.	Fundación Universidad Nacional de San Juan
SG 15/03	Recovery of areas degraded by grazing in the Cordillera zone	22,780.00	Residents who herd goats, and a smaller number of cows, that graze in the high valleys of the department of Iglesia.	As a result of the investigation, the most promising species for producing grass were selected. Their production capacity was studied and seed quality was determined, as well as systems to increase germination using different treatments, in order to establish the possibility of re-introducing and domesticating these species. This information formed the basis for broader studies undertaken by institutions with a strong	INTA

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
				presence in the area.	
SG 03/04	Optimization of the production system in the Maliman de Arriba area and its zone of influence	34,780.00 (to date)	10 families in Maliman.	The objective was to identify the most favorable sites to collect water from the Rio Blanco. Water quality was studied; native vegetation and its uses were identified; and species that tolerate the water's salinity were identified. An additional water collection point on the river is yet to be completed.	Fundación Universidad Nacional de San Juan
SG 05/04	Biodiversity of the wild fauna in the SGNP's zone of influence, conservation status, current uses, sustainable management proposals	58,010.00	Students, teachers, and residents of all the area's schools.	Workshops were provided to residents, teachers, and students in Colangüil, Maliman, Angualasto, and Tudcum. The first stage was to collect the knowledge of students and residents; the second stage was to present the knowledge collected and reaffirm the importance of the fauna. Teaching materials in the form of booklets were created about the subjects covered in the workshops; this was completed when the book "Fauna in the High Deserts: Characteristics, Uses, and Potentials in the SGNP Zone of Influence" was published.	Fundación Universidad de San Juan
COPO NATIONAL PARK BUFFER ZONE					
Productive subprojects					
Co 05/06	Improving production systems in the South of the Reserve	50,130.20	10 families in the Southern area of the reserve.	Visits were made to seek possible local providers of breeding cattle. Land preparation begun to install fences and posts and wire were purchased.	INTA
Co 06/06	Improvements in production systems in the West of the Reserve	30,075.20	6 families in the Western area of the reserve.	Due to the residents being located inside the area defined as Provincial Park, there are very strong limits on production. The only activity allowed was purchasing breeding cattle.	INTA
Training subprojects					
Co 01/06	Appropriate technologies in the Southern	16,673.00	21 families in the Southern area of the	Work was done with beneficiaries to establish the working schedule. The	MOCASE (Movimiento de

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
	area of the Copo Provincial Reserve		Provincial Reserve.	building location was prepared and materials were purchased to build "a mixed mud drum oven."	Campesinos de Santiago del Estero)
Co 02/06	Appropriate technologies in the Northern area of the Copo Provincial Reserve	16,673.00	14 families in the Northern area of the Provincial Reserve.	Same as above.	MOCASE
Co 03/06	Let's Learn to Produce by Conserving I – Southern zone	39,938.00	25 families in the Southern area of the reserve.	F Goat module was given: goat farming, silvo-pastoril systems – Integrated systems – Health – tanning of hides	MOCASE
Co 04/06	Let's Learn to Produce by Conserving II – Northern zone	41,524.00	11 families in the Northern area of the reserve.	Same as above, plus Forage Balance.	MOCASE
MONTE LEON NATIONAL PARK AREA OF INFLUENCE					
Training subprojects					
ML 01/04	Training on the appreciation of Heritage for teachers residing in the MLNP's area of influence	37,881.00	Approximately 50 teachers in each location (Puerto Santa Cruz and Piedra Buena) and the schools' students.	Training workshops were conducted on the zone's cultural and natural heritage. As a result, 7 projects were presented in Santa Cruz and 6 in Piedra Buena that reflected the work done with students. Of the teachers registered, 89 completed the requirements to receive credit for the points granted by the workshop. Teachers and students presented the projects at a meeting of the Consultative Commission.	Fundación Vida Silvestre Argentina

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
ML 02/04	Training about tools and Appreciation of Heritage in areas near MLNP	45,753.00	10 residents of each location (Comandante Luis Piedra Buena and Puerto Santa Cruz)	Training was provided to 6 participants about key elements of graphic design, training on using programs, and developing a joint project to publicize and show the region's heritage. The product was a booklet and a poster for each location. The rest of the participants took an inventory of goods that are heritage. Three sites of cultural and touristic interest were created: Casa del Pionero and Cañadón Misionero (Santa Cruz) and Réplica de Luis Piedra Buena (Comandante Piedra Buena).	Fundación Vida Silvestre Argentina
ML 04/04	Participatory Planning Workshop Course in Piedra Buena	56,900.00	43 residents of Comandante Luis Piedra Buena.	Strengthening community organization was encouraged in projects planned by workshop participants aimed at recognizing the value of the town's cultural resources.	CDESCO
ML 05/04	Participatory Planning Workshop Course in Puerto Santa Cruz	56,900.00	86 residents of Puerto Santa Cruz	Various project plans, suggested by participating residents, were developed. These were aimed at community development in recreational areas for young people and at recognizing the value of the town's cultural resources, which is related to the town's status as an urban population center.	CDESCO
ML 06/04	Complete training program for the rural and urban populations of the MLNP's area of influence	Of the budgeted amount, 20,300.00, only 15,885.42 was used	Residents of Puerto Santa Cruz and Piedra buena.	Eight trainings were held: 4 in the town of Puerto Santa Cruz and 4 in Comandante Luis Piedra Buena. They dealt with: pruning urban trees and fruit trees; construction and management of micro-tunnels for cultivating strawberries and gardens; use and installation of windscreens; and organic gardens and biological pest control.	Estación Experimental INTA Santa Cruz

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
ML 07/04	Creation of teaching material related to the MLNP's area of influence	28,336.00	131 teachers from Puerto Santa Cruz; and 146 from Cmte. Luis Piedra Buena.	All the teaching material was prepared. Copies still need to be made. There is a commitment to complete all activities by March 15, 2008.	Consejo Provincial de Educación
Applied studies					
ML 03/04	Evaluation of coastal fishing resources in Puerto Santa Cruz	60,000.00	6 low income fishing families from Puerto Santa Cruz who practice coastal fishing in the estuary of the Santa Cruz river.	A biological evaluation was done and types of fishing were evaluated. A market study was also done. As a result of these evaluations, fresh and conserved products extracted by small-scale fishermen began to be marketed. The last stage seeks horizontal transference to form a work group. There will be exchange trips to visit small work cooperatives.	Undersecretary of Fishing and Port Activities of Santa Cruz Province
ML 01/07	Test program to manage and control depredation of livestock in ranches near the MLNP	6,531.45	Sheep producers in the area bordering the MLNP	Based on a diagnosis of the situation, it was established that the survey of livestock will be concentrated at the Estancia Cañadón de las Vacas. Calving was monitored and deaths due to predation were recorded, as well as predator sightings and information about animals hunted by lion hunting dogs.	Fundación Vida Silvestre Argentina
MBURUCUYÁ NATIONAL PARK BUFFER ZONE					
Productive subprojects					
Mb 01/07	Strengthening families' consumption of self-produced food	19,087.00	5 families	Purchase of wire fencing and hand tools, preparation of areas to be used in the project.	Organización para el Desarrollo Comunitario Hebron
Mb 02/07	Production of cane honey	26,409.00	7 families	A sugar cane mill was acquired and honey production began with 130 liters of product.	Asociación de Pequeños Productores de Mburucuyá
Mb 03/07	Strengthening of small-scale corn starch and tapioca production	33,648.90	8 families	All of the planned water pumps were installed and construction began on trays for washing corn starch.	Asociación de Pequeños Productores de Mburucuyá
Mb	Development	33,482.00	8 families	Purchase and distribution of	Organización

Subproject		Total (Ars $)	Beneficiaries	Principal Results Achieved	Implementing Entity
04/07	of management and community raising of pigs			posts and wire. Preparation of installations.	para el Desarrollo Comunitario Hebron
Mb 05/07	Strengthening milk production for self-consumption and sale of its products	24,677.00	4 families	Purchase of components from El Boyero and materials to build installations.	Organización para el Desarrollo Comunitario Hebron
Mb 06/07	Tapioca and starch production in Northern Manantiales	37,131.00	8 families	Water pumps, some with motors, were installed. Trays construction for washing the starch began.	Asociación de Pequeños Productores de Mburucuyá
Mb 07/07	Nursery of native and ornamental plants	35,823.60	10 families	Ground was cleared and the fine wood needed to install the plastic was installed. Palm seedlings were collected and have begun to reproduce.	Asociación de Pequeños Productores de Mburucuyá
Mb 08/07	Recovering what is ours	22,729.50	6 families	Training began on fabric in frames and work began on softening hides.	Organización para el Desarrollo Comunitario Hebron

Component B

1. Argentina's biodiversity data base available on internet (www.sib.gov.ar) and corresponding alphanumeric and spatial (GIS) database
2. Computer equipment for the five nodes of the BIS: Patagonia, Northwest, Northeast, Central and headquarters.
3. Training trips to Costa Rica and Colombia.
4. Training activities for data collection by park rangers.

Component C

The PIU was composed of qualified technical professionals and administrative staff. Based on the number and diversity of programs, subprojects, and activities implemented under the project and supervised by the PIU, it was highly efficient in its work. The PIU staff demonstrated a high degree of dedication to their work and during the project's lifetime conducted 58 workshops, and processed over 400 separate contracts (for consultancy services and works). Each collaborated with the National General Auditor in project audits, and incorporated comments received into its operations.

Annex 3. Economic and Financial Analysis
(including assumptions in the analysis)

During the project appraisal, an economic and financial analysis for the GEF project was not carried out due to the nature of the project – strict biodiversity conservation with limited visitation, as opposed to economic (tourist) development. However, it was agreed at closure that it would be meaningful to conduct such analyses would be useful in order to gain insight into the fiscal impacts of the parks, and the extent to which they would be sustainable over time. Two approaches were taken:

(i) the first was to analyze the GEF-financed parks as stand alone, and
(ii) the second was to analyze the project parks in conjunction with the four parks financed through the IBRD Native Forests and Protected Areas Project, which was semi-blended to the GEF project

As stand alone parks, each of the GEF-financed parks was shown to have negative FIRRs. However, the analyses showed that QCNP and MLNP might begin to show positive net revenue around years 12 and 19, respectively. CNP and MNP were not expected to show positive net earnings. The main driver for increased revenue is tourist income, and the model is most sensitive to this factor. (Insufficient data existed for SGNP to calculate projected cash flows, principally visitor logs.)

While the GEF-financed parks are not self-sustaining, as part of the blending arrangement with the IBRD parks, and overall APN system they are. Increased revenues generated from the IBRD operation more than offset the operating costs associated with the new GEF project parks, indicating the blending arrangement was the correct approach. IBRD-financed parks generated over US $ 25 million annually by closure, representing over 50 percent of total park revenues.

Economic analysis

Component A – Protected Areas

The main achievements of the component included the establishment and management of protected areas and associated technical and legal work needed to ensure their procurement and management.

The principal beneficiary is the government agency, APN, responsible for managing the national parks system. The procurement and management of five parks provide for increased biodiversity conservation in high priority ecosystems of global importance in Argentina. Along with the biodiversity, valuable environmental goods and services in and around the park are also being conserved. This includes the protection of watersheds and wetlands (San Guillermo, Quebrada de Condorito and Mburucuyá), which are important to help regulate water quality, quantity and regimen; protection of soils (Copo and Monte Leon), which are prevented from degradation and depletion due to unsustainable cropping and overgrazing; and forests (all areas except Monte Leon) for carbon storage and the regulation of greenhouse gasses. The total area placed under conservation, 391,464 ha, was accomplished at an est. cost of apx. US $58 per ha, including land purchases. Excluding land purchases the costs are about US $43 per ha.

Costs of conservation are a function of many variables; stakeholder consultations, boundary demarcation, land purchase, construction of infrastructure, compensation and planning (Brunner,

Gullison and Balmfold 2004). In addition, the complexity of the ecosystems; frequency and intensity of threats; and the size of area (needed to achieve economies of scale) influence the costs. Because of the wide range of possibilities and situations, there are no standardized comparable costs to measure the efficiency of the project. This said, however, the indication is that the project was *highly efficient* when comparing costs of conservation to, for example, other land uses; with costs of US ~$800 per ha for forestry establishment and US ~$300+ per ha for establishment of grains in Argentina (excluding land, maintenance and harvesting costs).

While there are presently no revenues generated from the GEF-financed parks, the project has made it possible for them to do so through the provision of new visitor services and facilities to ensure the management of the areas (visitor centers, administration offices, ranger housing, toilets, camping and picnic areas, access roads, etc). Had the GEF-financed parks (excluding SGNP) charged admissions fees, by the final year of the project they would have generated a modest amount of revenue that year, around US $ 36 thousand total for four parks.

One of the benefits of twinning the GEF project with the IBRD Native Forests and Protected Areas Project in a semi-blended arrangement was the possibility to address both conservation and tourism objectives simultaneously. Increased revenues generated from the associated IBRD operation through tourism are shown to substantially offset the operating costs associated with the GEF project-financed parks and validate the original approach. Revenues from the four (IBRD) parks supported under the Native Forests/Protected Areas project rose significantly from US $5.6 million in 2000 to US $25.3 million in 2006. The GEF-financed parks are also fully incorporated into the APN system and now receive an annual budget allocation from APN, totaling about US $1.3 million.

Component B – Biodiversity Information System

The biodiversity information system provides a dynamic tool for internal APN users and external visitors to the website with the best information on biodiversity, available in Argentina. The BIS logs about 75,000 external visitors to its website each year. The system has proven to be a useful tool for APN in the planning and management of its parks. As its single best repository for biodiversity information, internal users can formulate and carryout queries concerning flora, fauna and other information needed for park management. During the preparation of the new IBRD Sustainable Natural Resources Management Project, both the Bank and APN teams used the database to support project development and planning. In this way, the BIS greatly improved the efficiency of APN in bringing new areas under conservation, as well as system-wide costs needed to support the existing protected areas with information needed for their management.

Financial analysis

Stand-alone analysis. The five protected areas supported by the GEF project focused on strict biodiversity conservation with limited visitation in five high-priority ecosystems: Cordoba Montane Savanna (QCNP), Central Andean Dry Puna (SGNP), Semi-arid Chaco (CNP), Patagonian Steppe (MLNP) and Humid Chaco-Iberá Wetlands (MNP). At closure, the project had succeeded in placing 391,464 ha under strict protection.

The infrastructure investments realized through the GEF project improved the conservation and management of the areas, and helped to “graduate” the parks to comply with APN criteria for charging admissions, and therefore generating revenue. At the end of the project, over 16 thousand people visited the GEF-financed parks each year (excluding SGNP). By comparison, visitation rates were effectively zero at inception, as the parks did not exist. Had APN charged

admission to the parks in 2007, the gross income would have been around US $36 thousand. This is however offset by annual operating costs of about US $1.3 million.

The streams of incremental revenue were calculated over a 20 year period for four of the five parks. (Insufficient data existed for SGNP.) Actual data were used up to 2007 for theoretical revenues, based on a 7 peso per person entrance fee, and up to 2008 for individual park's operating costs. The annual rate of visitation, which is assumed to be the main form of revenue, was calculated independently for each park. For CNP and MNP, annual increases in rates of visitation were projected at 10 percent, based on their remote locations.

For QCNP, park officials believe that once the access to the highway is complete next year by the province, visitors could easily triple. This is plausible given the proximity of the park to the major city of Cordoba. After that, it was assumed that rates would fall to the average annual rate of increase for Argentina's parks of about 30 percent, then level off at 10 percent after 5 years. For MLNP, even though the park is remote, the transportation infrastructure to the park is excellent, and the penguin colony is proving to be an important tourist attraction. Visitors frequently travel in groups from Rio Gallegos to the park, spend the day and return. Therefore the average annual rate of increase for visitation to Argentine parks (30 percent) was used for the first 10 years, and the standard worldwide rate of 10 percent thereafter.

Cash flow analysis based on the projected possible revenue show that QCNP is likely to have a positive cash flow in about 10 years, and MLNP in around 20 years. The other parks are not likely to have positive cash flows. FIRRs showed that all of the parks have negative rates of return. QCNP had the best return, but this still was only -4 percent. The conclusion of the stand-alone analysis is that the GEF-financed parks are not financially viable. On the other hand, they were not intended to be.

Semi-blended analysis. The protected areas component of the sister-Native Forests and Protected Areas project focused on four high visibility parks in Patagonia: Lanin, Los Alerces, Nahuel Huapi and Glaciares that total 2.1 million hectares; around 75% of the parks system coverage at the time of appraisal. The infrastructure investments realized through the IBRD project greatly enhanced the quantity and quality of infrastructure and services available at the four parks, and improved the visitors' experience. Revenues and visitation rates increased significantly at each.

Revenues from the four (IBRD) parks supported under the Native Forests/Protected Areas project rose significantly from US $5.6 million in 2000 to US $25.3 million in 2006. As a percentage of total park revenues for 2000 and 2006, those figures represent a jump from 35 percent to 53 percent, respectively.

The financial analysis results and comparisons are as follows:

IBRD Project Parks	FIRR At Appraisal (%)	FIRR at ICR (%)
Lanin	16	13
Nauel Huapi	13	32
Los Alerces	36	8
Los Glacares	11	57

In conclusion, because of the blending with the IBRD operation and the incorporation of the GEF project parks into the overall APN system, the goal of ensuring the parks are financially sustainable is considered successful. This finding is further substantiated by the fact that each of the 5 Project supported parks is now receiving annual allocations from APN (see table below),

who has assumed all associated costs of the parks from the GEF. (The overall 2008 APN budget has increased by AR$40 million over the last year to AR$131 million with important additions in field personnel and infrastructure investments.)

GEF Project - Protected Areas	2008 Budget (US $)
Quebrada del Condorito	270,016
San Guillermo	349,253
Copo	234,287
Monte León	239,589
Mburucuyá	197,727

Finally, although the Project supported parks still do not charge entrance fees, they are now ready to so as the infrastructure investments have improved visitor services and set the stage for APN to begin to generate modest amounts of revenue.

Conclusion

The analysis indicates that the decision to blend the GEF Biodiversity Conservation Project with the IBRD Native Forests and Protected Areas Project was correct. While the GEF project is not self-sustaining in a stand-alone form, its blending with the IBRD and the formal incorporation of the parks into the APN system ensures their sustainability. The 5 Project-supported parks are now ready to generate revenues through entrance fees and some will likely begin to charge them in 2009. At the same time, it is important to emphasize that the objective of the GEF was strict biodiversity conservation, and it has achieved this, with the sustainability of outcomes ensured through its incorporation into the wider APN system, including the parks supported by the partially-blended IBRD project, which are the main sources of revenue for APN.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Robert Kirmse	Senior Forestry Specialist	ECA	TTL, Forests
Random Dubois	Senior Environmental Officer	FAO	Protected Areas
Douglas Graham	Senior Environmental Specialist	EASVS	Biodiversity/Info Systems
E. Gacitua-Mario	Senior Social Specialist	LCSAR	Social and Participation
Rudy V. Puymbroeck	Senior Counsel		Lawyer
Richard Smith	Consultant		Protected Areas
Guillermo Wood	Consultant		Cost Tab
Alejandra Moreyra	Consultant		Buffer Zone Mgt
Gary Costello	Consultant		Social Mitigation Plans
Patricia Parera	Consultant		Social and Participation
Vicente Abreu	Consultant		Biodiversity Info Sys.
Jim Tolisano	Consultant		Institutions
Supervision/ICR			
Robert R. Davis	Senior Forestry Officer	LCSAR	TTL, Forests and Park Administration
Natalia Cecilia Bavio	Financial Management Analyst	LCSFM	Financial Management
Zhong Tong	Agricultural Economist	LCSAR	Economics
Christine Drew Dragisic	Junior Professional Associate	LCSEN	Operations
Ana Maria Grofsmacht	Procurement Analyst	LCSPT	Procurement
Ricardo Larrobla	Consultant	LCSAR	Natural Resources
George Campos Ledec	Lead Ecologist	LCSEN	Biodiversity
Alejandro Roger Solanot	Financial Management Specialist	LCSFM	Financial Management
Francis Fragano	Consultant	LCSAR	Biodiversity
Florencia Reca	Consultant	LCSAR	Protected Areas and ICR

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	US $ Thousands (including travel and consultant costs)

Lending		
FY95		129.48
FY96		127.63
FY97		238.49
FY98		27.25
FY99		0.11
FY00		0.00
FY01		0.00
FY02		0.00
FY03		0.00
FY04		0.00
FY05		0.00
FY06		0.00
FY07		0.00
FY08		0.00
Total:		522.96
Supervision/ICR		
FY95		0.00
FY96		0.00
FY97		0.00
FY98		65.30
FY99		69.95
FY00		68.95
FY01		73.16
FY02		66.92
FY03		70.78
FY04		67.20
FY05		56.14
FY06		55.19
FY07		42.02
FY08		41.16
Total:		676.77

Annex 5. Beneficiary Survey Results
(if any)

Not applicable

Annex 6. Stakeholder Workshop Report and Results
(if any)

Not applicable

Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR

INTRODUCTION

In 1998, the GEF Biodiversity Conservation Project (BCP) was approved and began its implementation by APN, under the SRNyAH. Shortly thereafter, APN was transferred to the Ministry of Tourism, where it remains today. The BCP's objectives are to

- expand and diversify the existing National Protected Areas System (NPAS) to include several of the country's most globally significant but inadequately protected ecoregions
- create the conditions for their sustainable management through investments in institutional strengthening, refined mechanisms of consultation and participation, and improved biodiversity information management.

The project has three main components (a) Protected Areas, (b) Biodiversity Information Management and (c) Project Management, Monitoring and Evaluation. The project's main beneficiaries are

- The government institutions responsible for the management and sustainable development of protected areas;
- Rural populations in the zone of influence (and within the protected areas in certain areas);
- Park visitors (through the provision of improved facilities, management and services in the new parks);
- The tourism sector (through new infrastructure which attracts increased numbers of park visitors to rural areas);
- The education sector (through the development of teaching materials and training programs for rural schools relative to conservation)

RESULTS

Component A "Protected Areas". The main goal of the component was the establishment of five national parks in priority ecosystems, including the

- Pampas
- Central Andean Dry Puna
- Semi-Arid Chaco
- Córdoba Montane Savannas
- Patagonian Steppe and littoral and wetland habitat

During implementation, four parks were established in the above ecosystems, and a fifth in the Humid Chaco. Activities financed by the project included

- Procurement of lands

- Land titling
- Boundary surveys
- Designation of the procured areas as national parks
- Institutionalization of the parks (within APN)
- Investments in works and equipment
- Assigning permanent park personnel to the new areas
- Sustainable Development Projects in buffer zones
- Public Participation
- Mitigation of social situations

Rating for Component A. Satisfactory.

The project supported the establishment of five national parks in priority ecosystems, assigning 31 park rangers and 36 administrative and support staff to them, completing 39 infrastructure works, 53 meetings of consultative commissions, 8 families included in mitigation activities reducing impacts in the parks due to incursions and disturbances, monitoring of biodiversity indicator species, and the completion of 62 subprojects in the buffer zones. (The project did not finalize the establishment of a national park in an area of Pampas grassland, as originally proposed. Instead, it included a national park in the Humid Chaco, also identified as a high priority for biodiversity conservation.)

Component B. Biodiversity Information Management. The main objective of the component was to provide ready access of information for decision makers concerning conservation issues and the sustainable use of biodiversity. The component completed the establishment of five data management nodes in various geographic regions of Argentina, including:

- Headquarters, Buenos Aires
- Patagonia
- Central Region
- Northwest Region
- Northeast Region

Each node now collects, organizes, reviews, quality controls and enters data/information about the protected areas in its respective geographic area; the information is later transferred to the Internet. The Buenos Aires nodes coordinates the work Information is processed at each node using databases developed by the Patagonia node. Several individual databases are supported, including those for public use, residents, biological surveys, land registry, fires, etc. and can be linked to conduct various queries.

Rating for Component B. Highly Satisfactory

The Biodiversity Information System (BIS) was completed and on the internet at www.sib.gov.ar , and includes 3,196 source documents, 227 maps, 458 species photographs, and information about 24,267 species, subspecies, and varieties of flora, 13,842 species of fauna, 2,081 of mushrooms, and 244 of bacteria and cyanophytes. The

five data management nodes are fully operational and BIS personnel have been hired by APN to continue the work. The BIS has an annual budget allocation from APN and participates in annual planning exercises.

Component C Management, Monitoring and Evaluation. This component financed technical assistance, equipment and incremental operational costs needed to strengthen the capacity of APN to manage the overall program. It also supported scientifically sound monitoring of biodiversity at globally significant Protected Areas sites. The PIU staff demonstrated a high degree of dedication to their work and during the project's lifetime conducted 58 workshops, and processed over 400 separate contracts (for consultants services,and works).

Rating for Component C: Satisfactory (see above)

OVERALL PROJECT PERFORMANCE

Rating: Satisfactory. APN considers the performance satisfactory, considering that the project succeeded in the incorporation of over 380,000 ha in five priority ecosystems; the Cordoba Montane Savanna, Central Andean High Puna, Semi-Arid Chaco, Patagonian Steppe and Oceanic Patagonian Littoral and Humid Chaco, Iberá Wetlands. Although the protected areas was not procured at closure, APN has now prioritized the need for protection of this ecosystem. Although the ten-year timeframe was long, this was in large part, due to the economic crisis of 2001-2003.

ASSESSMENT OF BANK PERFORMANCE

Preparation. Satisfactory. The Bank performance in the identification and preparation of the project was satisfactory. However, the Bank did not sufficiently estimate the complexity of procurement and legal designation of new lands for national parks in Argentina.

Supervision. Satisfactory. There were two task team leaders over the course of the project. The experience and quality of the supervision team contributed to the project's success. There were a total of 21 supervision missions. The interdisciplinary nature of the supervision team provided value added to the work. Biodiversity specialists, institutional experts, foresters and economists participated in the supervision missions.

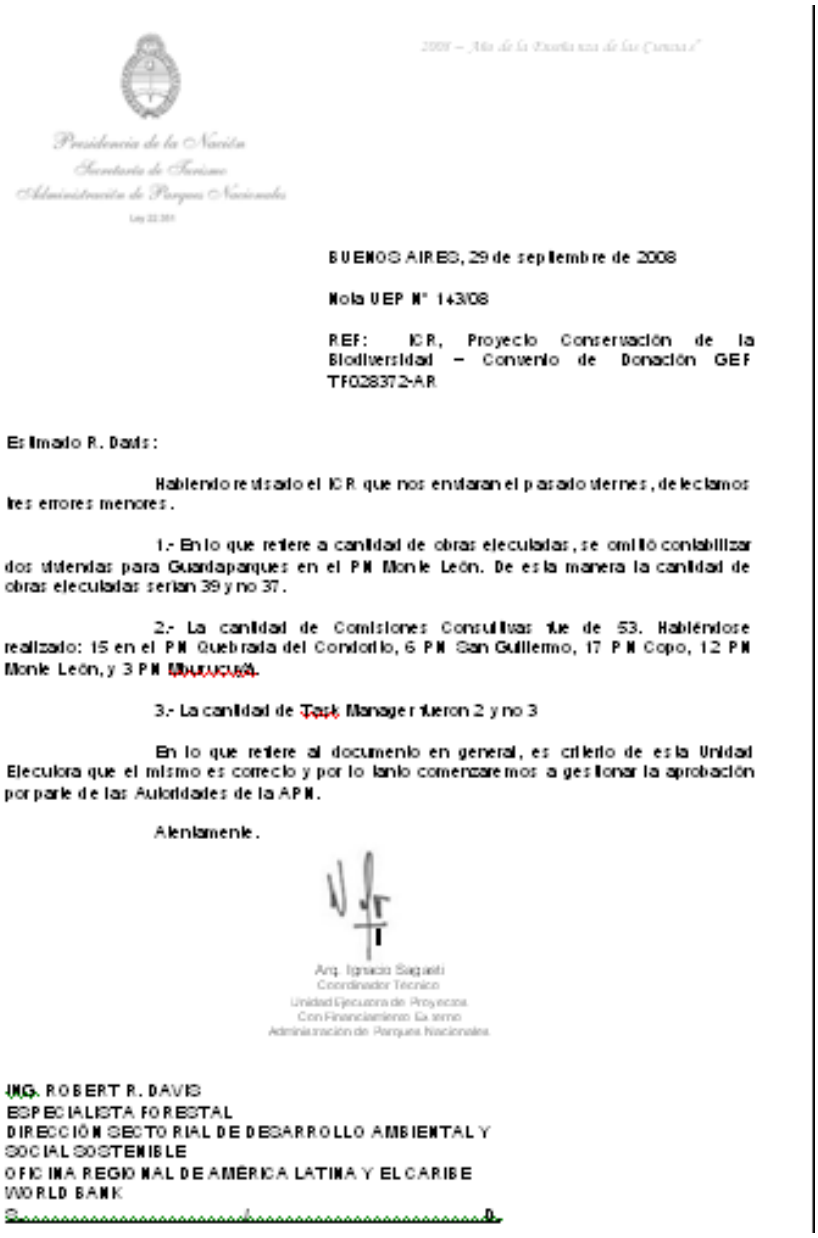
ASSESSMENT OF APN PERFORMANCE

APN Performance. Satisfactory. APN provided the necessary administrative, financial resources (counterpart funds) and personnel to support the project and conducted the work in an efficient manner. APN participated in Bank missions and complied with fiduciary requirements, including audits. They worked diligently to correct or resolve issues during implementation, and kept the project on track. The institution also participated actively in the closure of the project.

ASSESSMENT OF GOVERNMENT PERFORMANCE

Borrower Performance. Satisfactory. Overall borrower performance is considered satisfactory given the level of government commitment during the project's tenure. The government assigned a high priority to the establishment of five new national parks y collaborated extensively with the Bank in the effort. During the crisis the government was able to maintain the project, and provide some counterpart funds, which kept it from failing.

Letter from APN concerning the Draft ICR:



Presidencia de la Nación
Secretaría de Turismo
Administración de Parques Nacionales

2008 – Año de la Enseñanza de las Ciencias"

BUENOS AIRES, 29 de septiembre de 2008

Nota UEP N° 143/08

REF: ICR, Proyecto Conservación de la Biodiversidad – Convenio de Donación GEF TF028372-AR

Estimado R. Davis:

Habiendo recibido el ICR que nos enviaran el pasado viernes, declaramos tres errores menores.

1.- En lo que refiere a cantidad de obras ejecutadas, se omitió contabilizar dos viviendas para Guardaparques en el PN Monte León. De esta manera la cantidad de obras ejecutadas serían 39 y no 37.

2.- La cantidad de Comisiones Consultivas fue de 53. Habiéndose realizado: 15 en el PN Quebrada del Condorito, 6 PN San Guillermo, 17 P N Copo, 12 PN Monte León, y 3 PN Iguazú.

3.- La cantidad de Task Manager fueron 2 y no 3

En lo que refiere al documento en general, es criterio de esta Unidad Ejecutora que el mismo es correcto y por lo tanto comenzaremos a gestionar la aprobación por parte de las Autoridades de la APN.

Atentamente.

Arq. Ignacio Saguier
Coordinador Técnico
Unidad Ejecutora de Proyectos
Con Financiamiento Externo
Administración de Parques Nacionales

ING. ROBERT R. DAVIS
ESPECIALISTA FORESTAL
DIRECCIÓN SECTORIAL DE DESARROLLO AMBIENTAL Y SOCIAL SOSTENIBLE
OFICINA REGIONAL DE AMÉRICA LATINA Y EL CARIBE
WORLD BANK

Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders

Not applicable

Annex 9. List of Supporting Documents

APN. 2008. Evaluación de Cierre del Proyecto de Conservación de la Biodiversidad, TF 28372

Bilenca, D. and F. Miñarro. 2004. Valuable Grassland Areas in the Pampas and Plains of Argentina, Uruguay, and Southern Brazil. J.M. Kaplan Fund-FVSA.

Brunner, Aaron; Raymond Gullison and Andrew Balmfold. 2004. Financial Costs and Shortfalls of Managing and Expanding Protected-Area Systems in Developing Countries in BioScience, Vol 54 no. 12.

Serrano, Sonia. 2008. ICR. Argentina – Proyecto GEF 28372, Informe Final.

The World Bank. 1997. Argentina Republic. Biodiversity Conservation Project. GEF Project Brief.

The World Bank. Country Assistance Strategy, Report no. 14278-AR.

The World Bank. Country Assistance Strategy, Report no. 34015-AR.

The World Bank. Implementation Closure and Results Report, IBRD 4085. Report no. ICR0000437.

The World Bank. 2004 Quality of Supervision Assessment (QSA6) for the Argentina Biodiversity Conservation Project.

IBRD 36492

ARGENTINA
GEF BIODIVERSITY CONSERVATION
PROJECT PROTECTED AREAS AND ECOREGIONS

This map was produced by the Map Design Unit of The World Bank. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of The World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.

SELECTED NATIONAL PARKS

ECOREGIONS:
- ALTOS ANDES
- PUNA
- MONTE DE SIERRAS Y BOLSONES
- SELVA DE LAS YUNGAS
- CHACO SECO
- CHACO HÚMEDO
- SELVA PARANENSE
- ESTEROS DEL IBERÁ
- CAMPOS Y MALEZALES
- DELTA E ISLAS DEL PARANÁ
- ESPINAL
- PAMPA
- MONTE DE LLANURAS Y MESETAS
- ESTEPA PATAGÓNICA
- BOSQUES PATAGÓNICOS

PROVINCE CAPITALS
NATIONAL CAPITAL
RIVERS
PROVINCE BOUNDARIES
INTERNATIONAL BOUNDARIES

SEPTEMBER 2008