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Report No: 22380

IMPLEMENTATION COMPLETION REPORT
(TF-28620; TF-28629)

ON A

GRANT

IN THE AMOUNT OF US\$4.5 MILLION

TO THE GOVERNMENT OF

BOLIVIA

FOR A

BIODIVERSITY CONSERVATION PROJECT (GEF)

06/28/2001

**Bolivia, Ecuador, Peru Country Management Unit
Environmentally and Socially Sustainable Development Sector Unit
Latin America and the Caribbean Region**

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CURRENCY EQUIVALENTS

(Exchange Rate Effective 1998)

Currency Unit = Boliviano (Bs)

US\$ 1.00 = Bs. 5.50

FISCAL YEAR

January 1 - December 31

ABBREVIATIONS AND ACRONYMS

CAS	Country Assistance Strategy	MDSP*	Ministry of Sustainable Development and Planning
DGB*	Directorate of Biodiversity	MMARNF	Ministry of Environment, Natural Resources and Forestry
DNAPVS	National Directorate of Protected Areas and Wildlife (foreseen in SAR)	NP	National Park
DNCB*	National Directorate of Protected Areas	PA	Protected Area
DS	Supreme Decree	NGO	Non Governmental Organization
ETAP	Environmental Technical Assistance Project	PMU	Project Management Unit
FONAMA	National Environmental Foundation	PPF	Project Preparation Fund
FY	Fiscal Year	SAR	Staff Appraisal Report
GEF	Global Environment Facility	SDC	Swiss Development Corporation
GET	Global Environment Trust Fund Grant Agreement	SDR	Special Drawing Rights
GOB	Government of Bolivia	NSPA	National System of Protected Areas
ICR	Implementation Completion Report	SENMA*	National Secretary of Environment
IDA	International Development Association	SNRNMA*	National Secretariat of Natural Resources and Environment
IDB	Inter-American Development Bank	SSNR	Subsecretary of National Resources
INRA	National Institute of Agrarian Reform	SWF	Swiss Francs
JGF	Japanese Grant Facility	UICN	International Union for the Conservation of Nature
LIDEMA	Environmental Defense League	WB	World Bank
MDSMA*	Ministry of Sustainable Development and Environment		

*

- SENMA was replaced with the DNCB/MDSMA in 1993.
- The DNCB, within the MDSMA, was the executing agent until August 1997, when the names were changed to DGB and MDSP respectively.
- The MDSP was changed to the MMARNF in July 1998

Vice President:	David De Ferranti
Country Manager/Director:	Isabel Guerrero
Sector Manager/Director:	John Redwood
Task Team Leader/Task Manager:	Elizabeth Monosowski

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BOLIVIA **Biodiversity Conservation Project (GEF)**

CONTENTS

	Page No.
1. Project Data	1
2. Principal Performance Ratings	1
3. Assessment of Development Objective and Design, and of Quality at Entry	2
4. Achievement of Objective and Outputs	4
5. Major Factors Affecting Implementation and Outcome	7
6. Sustainability	10
7. Bank and Borrower Performance	12
8. Lessons Learned	14
9. Partner Comments	15
10. Additional Information	16
Annex 1. Key Performance Indicators/Log Frame Matrix	17
Annex 2. Project Costs and Financing	18
Annex 3. Economic Costs and Benefits	19
Annex 4. Bank Inputs	20
Annex 5. Ratings for Achievement of Objectives/Outputs of Components	21
Annex 6. Ratings of Bank and Borrower Performance	22
Annex 7. List of Supporting Documents	23

MAP # 23957R

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<i>Project ID:</i> P006108	<i>Project Name:</i> Biodiversity Conservation Project (GEF)
<i>Team Leader:</i> Elizabeth Monosowski	<i>TL Unit:</i> LCSEN
<i>ICR Type:</i> Core ICR	<i>Report Date:</i> June 29, 2001

1. Project Data

Name: Biodiversity Conservation Project (GEF) *L/C/TF Number:* TF-28620; TF-28629
Country/Department: BOLIVIA *Region:* Latin America and Caribbean Region
Sector/subsector: VM - Natural Resources Management

KEY DATES

<i>PCD:</i> 03/10/1992	<i>Effective:</i>	<i>Original</i>	<i>Revised/Actual</i>
<i>Appraisal:</i> 09/21/1992	<i>MTR:</i>		07/13/1993
<i>Approval:</i> 12/10/1992	<i>Closing:</i>		12/31/1998

Borrower/Implementing Agency: GOVT OF BOLIVIA/NAT ENVIRONMENT FUND
Other Partners:

STAFF	Current	At Appraisal
<i>Vice President:</i>	David De Ferranti	
<i>Country Manager:</i>	Isabel M. Guerrero	
<i>Sector Manager:</i>	Teresa Serra	
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2. Principal Performance Ratings

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

Outcome: S
Sustainability: L
Institutional Development Impact: M
Bank Performance: S
Borrower Performance: S

Quality at Entry: S *QAG (if available)* ICR
Project at Risk at Any Time: No S

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

3.1 Original Objective:

The major project objective was to consolidate six protected areas and to establish two new ones. It included support to the Directorate of Protected Areas (DGB), training of protected area personnel, development of an information system, definition of boundaries and development of a warden system. Financial administration was the responsibility of the National Environment Fund (FONAMA). Sustainability was to result from activities related to institutional strengthening, staff training, development of management plans, establishment of information systems, environmental education and financing of infrastructure logistic support. In addition, the project included the establishment of a trust fund to cover operational expenditures.

3.2 Revised Objective:

The objective of the Project was to help ensure protection of representative areas of some of Bolivia's most endangered and protected ecosystems, via an integrated approach involving indigenous communities, non governmental organizations (NGOs), regional and central government institutions.

The key project objectives of establishing two new protected areas, forming an integrated system of protected areas, training and staffing central and protected area personnel and involving local communities in decision making and management, were generally met and their scope often exceeded.

The project did not succeed in establishing a fiduciary fund of a magnitude sufficient to finance annual operating costs of the NSPA (approximately US\$200,000 per protected area). This is also addressed by the follow-up project.

3.3 Original Components:

The major components were:

- (i) support for the organization, implementation, and follow up of a National System of Protected Areas (NSPA);
- (ii) support to six existing protected areas and the establishment of two new areas;
- (iii) alternative management of natural resources in buffer zones; and
- (iv) administrative support to the project coordination unit in the National Environment Foundation (FONAMA).

3.4 Revised Components:

The project succeeded in establishing a viable National System of Protected Areas; in attracting other donors (USA, Holland, Switzerland, Canada, Britain, Germany) to support the SNAP; and building a constituency for the NSPA among the local communities.

A viable NSPA: The project managed to establish a core system composed of: (i) legally defined parks in place with a reasonable infrastructure and logistic support to enhance their protection; (ii) several areas (Noel Kempf, Chaco) in place with capable non-government staff and funding raised on their own initiative; (iii) a well equipped central administration system with a small core

of trained professionals; (iv) trained field personnel supported by equipment and vehicles.

Building donor support: The future of the NSPA is linked to the confidence of potential donors in the integrity and transparency of the system and the level of support from the GOB. Both began to improve by mid-1998, with donor commitments representing about US\$30 m spread out over 10 years or more.

Building a constituency among local communities: The acceptance and support of communities for the co-management of the protected area depended on the extent communities participated in the planning, management, and economic benefits of an area. The overall effect of the NSPA on regional communities varied throughout the system. It depended in part on ownership, perceived and actual benefits, and participation. In areas owned entirely by communities, their response varied from mild acceptance (Sajama), through positive (Ulla Ulla) to very positive (Chaco). The differences seem clearly related to the benefits local communities have realized to date. Sajama has received minimal benefits: park infrastructure, negligible entrance fee, and a few local guard positions. Ulla Ulla has been the recipient of local guards, more protection against theft of livestock, and livestock management assistance. Chaco has received most of the preceding, plus management and property rights to the areas involved. The indigenous communities involved were empowered to a considerable degree by the creation of the area.

Where communities are numerous and mainly scattered around the edge of the Protected Areas (Amboró Park, Carrasco) conflict for resource use within the park has been high. Additionally, because communities have not realized the benefits they anticipated, acceptance of the protected areas concept has been tenuous at best.

In some Protected Areas there are only a few remote communities scattered around the perimeters. Community opinion and reaction in these areas fell within the following three categories:

- (i) In Noel Kempf and Beni Biological Station demand on resource use within the Protected Areas is minimal, and there are no serious conflicts. There is a sense of frustration at not being more fully involved in the perceived tourist benefits, which to date are largely theoretical;
- (ii) Madidi and Pilon Lajas communities are more affected in that they have long been somewhat depending upon resource extraction from within the areas. There are serious conflicts between protection, development (road, access, electricity), and resource extraction. At present the areas are so large and inaccessible that conflicts between user groups are restricted to the periphery. Ecotourism is increasing rapidly in these areas and it is anticipated that these benefits will gradually overshadow resource extraction activities. There are a few bi-lateral donor projects assisting ecotourism development;
- (iii) Eduardo Avaroa remains somewhat distinct. It has a single large community with a well developed, private sector tourist base, which operates in an almost totally unregulated fashion within the protected area. While the community benefits from the area being protected, the mechanism to control tourism effectively, and to share the substantial tourist revenues between MDSMA and the few isolated communities within the area remains to be worked out. This has led to frustration by small communities within the area, and some conflict with private operators in Uyuni, the single large community that dominates the ecotourism business.

3.5 *Quality at Entry:*

N/A

4. Achievement of Objective and Outputs

4.1 Outcome/achievement of objective:

The following are the main achievements of the project:

- (a) A National Directorate of Biodiversity Conservation (DNCB) was formed in 1993. The National System of Protected Areas (NSPA) was consolidated. The DNCB and eight protected areas were staffed with competent professionals, most of whom received training under the project;
- (b) A Biodiversity and Parks Management Information was developed. Long term management plans were finalized for five areas, and four more are in final stages of completion;
- (c) Two new protected areas (5.3 million hectares), Chaco and Madidi, were established and staffed;
- (d) Administrative Agreements were signed with nongovernmental organizations for the management of selected protected areas. Thus, three areas were placed under local NGO management, one under the responsibility of an indigenous group, while another was placed under the National Academy of Science. Plans are in place to devolve management responsibility or additional areas to other decentralized units on an ongoing basis;
- (e) The geographical boundaries of eight areas were agreed upon and legally defined. An agreement was reached with the Land Commission to define one additional area per year;
- (f) One hundred and sixty park wardens and thirteen area directors were trained, equipped and assigned to twelve protected areas by the end of the project; and
- (g) The following policies and regulations were developed with project funds: (i) policy and procedures regarding community involvement in decision making on issues relating to the parks; (ii) specifications for buildings and infrastructure for protected areas (PA's); (iii) hiring and promotion guidelines for PA staff; (iv) guidelines and procedures for financial management; (v) policies on genetic resources and wildlife; and (vi) classification of protected areas.

4.2 Outputs by components:

Specific activities included:

- (i) institutional support to the National Directorate of Biodiversity Conservation (DGB) in the Subsecretary of Natural Resources (SSNR). A National Directorate of Biodiversity Conservation (DNCB) was organized under the National Subsecretariat of Natural Resources of the MDSMA. The DNCB included the following directorates: (i) protected areas; (ii) wildlife; and (iii) genetic resources. In mid 1997, the name of the DNCB was changed to General Directorate of Biodiversity (DGB) and it was placed under the umbrella of the Viceministry of Natural Resources. For the most of the execution period the heads of the DGB were first rate professionals and for the most part it was staffed with competent professionals in the field and at headquarters, and it was adequately equipped with office and field equipment, materials,

computers and vehicles. In late 1997, the administration of the NSPA was assigned to a newly created National Park Service (SERNAP). Planning, policy, wildlife and genetics remained with DGB;

(ii) development of an information system. An information system was developed which contained: (i) a photographic library on protected areas (600+ slides and photos); (ii) video cassettes (25+) for promoting and visitor information; (iii) over 3000 newspaper and magazine articles; and (iv) over 2000 articles and texts and more than 160 maps. The material has been carefully catalogued using an ISIS format and is currently managed by SERNAP;

(iii) consolidation of the SNAP via the development and implementation of management plans and defining boundaries. At the end of the project fourteen areas were functioning under the guidelines of Annual Operating Plans. Long term management plans have been completed for five areas: Sajama, Beni Biological Station, Noel Kempf, Amboro, Ulla-Ulla; and four more were in the final stages of completion: Eduardo Avaroa, Chaco, Toro-Toro and Pilón Lajas (as of June 2001 these plans have been completed).

Two new protected areas (Madidi, and Chaco) were established as foreseen in the SAR and in the Grant Agreement: **Madidi National Park** in the north central Bolivia was established on September 29, 1995; and **Chaco (Kaa-Iya del Gran Chaco) National Park** was created on September 29, 1995. In 1996 the Government successfully negotiated the establishment of a “bi-national” park with an adjoining area in Paraguay. Three additional protected areas were created with non-GEF funds during the life of the project: Otuquis National Park, San Matias and El Palmar National Integrated Management Areas.

Three areas are being managed by NGOs: Ulla Ulla, Noel Kempf and Pilon Lajas. Native community groups presently manage the Chaco National Park, and the Beni Biological Station is managed by an academic institute. Management agreements have been signed with NGOs regarding management of two more decentralized units: Eduardo Avaroa, and Tariquia. Pilon Lajas will be transferred from management by an NGO to native groups in the area under the follow-up GEF project. Regional development committees had input into the management process in most areas at the end of the project.

Boundaries have been drawn up, and agreed upon by local communities and the National Government for eight areas. Working with the National Institute for Agrarian Reform (INRA), the SERNAP expects to complete the legal definition of the additional areas during the follow-up GEF project;

(iv) implementation of a program of control and enforcement within the NSPA. An operational system of protection was set up in twelve protected areas. It includes: (a) approximately one hundred and sixty park wardens, and thirteen area directors plus support staff; (b) a sophisticated radio communication system (58 fixed radios, 17 mobiles and 28 hand held radios), allowing for daily contact between central headquarters and fourteen protected areas; (c) all park wardens were selected in a transparent, participatory fashion via local communities. They are reasonably equipped and have received training in such areas as: policies and procedures; enforcement and biology; (d) basic infrastructure for primary and secondary park guard stations; (e) 50 motorcycles, 16 vehicles and 46 bicycles give wardens the mobility to operate effectively; and (f) guidelines for standardized patrols and reports have been drawn up and are being followed. In

spite of these positive features, wardens do not have a clear legal mandate for enforcement, or the long term job security that will ensure continuity. The Biodiversity Conservation Law, when implemented, will provide additional legal support for their enforcement mandate;

(v) training for personnel in the National Directorate of Protected Areas (DNCEB) and in the protected areas themselves. An educational profile of all park personnel was developed. Modular courses (four in all) were given to 230 park guards. The first thirty six have completed the entire series. An agreement for ongoing training has been drawn up with Gabriel Rene Moreno University. Masters degree theses relating to protected area management were supported. Eight NSPA staff received training from specialized institutions outside Bolivia. Finally, 21 area directors and technical people completed a modular training program; and

(vi) development of rules regulations, policies and procedures to supervise NSPA and coordinated system for law enforcement. Policies and regulations were drawn up and are being followed regarding: community involvement to decision making; building specifications and infrastructure in parks; enforcement procedures; hiring and promotion of staff; and management of area finances. Policies on access and use of genetic resources were developed.

Policies and scientific studies regarding the census, management, and use of wildlife (notably crocodiles, vicuña) were developed, and pilot management programs initiated. The vicuña population doubled from that of 1986 to 33,800 animals in 1998. Experimental harvests of vicuña wool have been executed in two areas. The GOB is working with the International Council on Trade in Endangered Species (CITES) to allow for certification and legal export. This can well be the beginning of a lucrative export industry for Bolivia and was developed in large part by staff funded under the project.

In coordination with the Subsecretariat of Tourism, a policy on Ecotourism in Protected Areas is being finalized. Critical legislation which would allow for charging user fees remains to be passed, and at the end of the project access to protected areas remained free to users. Such a program is vital for the ongoing financing of the NSPA.

4.3 Net Present Value/Economic rate of return:

N/A

4.4 Financial rate of return:

N/A

4.5 Institutional development impact:

Positive features were:

- (i) the assignment of technically qualified professionals with high level of political support as directors of the DGB;
- (ii) hiring of competent field level professionals;
- (iii) implementation of a well designed training program for park guards;
- (iv) timely construction of infrastructure and provision of vehicles, uniforms and logistic support to the protected areas financed under the project;

- (v) involving NGOs and local authorities in the decision making process regarding management of the NSPA;
- (vi) adequate intensity and frequency of supervision missions; and
- (vii) obtaining political support of the Executive Branch and of Congress for the establishment of two new protected areas.

In the Staff Appraisal Report (SAR) financial administration and supervision were seen as the exclusive role of the Project Management Unit (PMU) in FONAMA, while actual implementation was the responsibility of the DNCB. The Bank was to supervise implementation via a locally based consultant to follow up on day to day issues and by periodic field visits by a Washington-based task manager.

5. Major Factors Affecting Implementation and Outcome

5.1 Factors outside the control of government or implementing agency:

The original project concept document could not have foreseen the numerous political changes and conflicts which took place one year after execution started and their impact on project execution. It was important to the success of the project that the Bank had the flexibility to approve changes in the operating plans as these unpredictable events arose. Examples: invasion of areas by commercial forest harvesters; organized union protests over land rights; spontaneous illegal colonization; coca production and illegal mining in protected areas; institutional collapse. In addition, the Bank needed to respond (not always successfully) to the priorities and policies of three different governments.

5.2 Factors generally subject to government control:

The factors which impacted the project positively for most of its execution period are as follows:

- (i) the designation of DGB technically qualified directors who enjoyed high political support, adequate funding, and the mandate to act independently without political interference;
- (ii) the hiring of competent dedicated technical/field level professionals for the DGB and for each of the protected areas;
- (iii) the involvement of local communities in park management activities particularly in the selecting of competent park personnel, budget preparation and in their active participating in the area development committees;
- (iv) interactive Bank Supervision Missions composed of experienced Parks personnel and local experts, which combined technical advice as well as routine evaluation;
- (v) the development of national programs, by technically qualified staff, to begin the sustainable management of vicuña and crocodiles, was particularly significant; and
- (vi) the government's political will to establish with project funds two new, large, ecologically significant areas (Chaco, Madidi).

Factors that limited project performance were:

- (i) the change in institutional framework for execution of the project brought about by the

reorganization of the public sector promoted by the incoming government;

- (ii) weakening of FONAMA which was the financial intermediary for the project. Under the reorganization of the public sector institutions, FONAMA lost its autonomy and was placed under the umbrella of the MDSMA. This resulted in frequent changes (six in four years) of its general manager reportedly for political reasons. Changes in FONAMA implied delays in timely disbursement of Grant funds and in the procurement process of goods and services;
- (iii) lack of permanent positions for technical staff in the DGB forced the DGB to resort to hiring consultants for line positions throughout the life of the project;
- (iv) considerable more time and effort was required than originally foreseen for the consultation process with local communities (particularly in protected areas with diverse socioeconomic issues); and
- (v) the advent of a new government administration in August 1997 brought about many staffing changes in the DGB which resulted in the departure of qualified project-trained staff.

5.3 Factors generally subject to implementing agency control:

The most important factor affecting project performance was the frequent changes in FONAMA's upper management authorities. Sustainability of project supported activities was adversely affected by FONAMA's failure to managed effectively the trust fund and to obtain additional grants to meet the minimum amount required to generate sufficient income to finance in the medium and long-term operational costs of the NSPA.

The factors limiting project performance were:

- (i) the constant management instability of FONAMA and its lack of capacity to both manage the fiduciary fund and to lobby for additional grants. This had the single most debilitating effect on the project rate of execution. This was exacerbated in June 1997 when FONAMA project coordinating unit staff was dismissed and was not adequately replaced until more than a year later;
- (ii) hiring of staff in both FONAMA and in the DNCB/DGB using criteria based on other than technical considerations. This was particularly serious in the case of FONAMA;
- (iii) excessive emphasis on central programs and administration in the initial years of project execution. This reduced funding to the areas themselves and delayed the decentralization of authority to protected areas;
- (iv) failure to incorporate more fully communities into the planning and management process of some protected areas was a weakness which sometimes caused less than full commitment on their part. Admittedly, there were complex socio-economic issues affecting the work within and among communities which made it difficult to integrate them in the management of particular parks. Additionally, lack of experience on the part of project staff in conflict resolution methodology implied that the process was more complex and time consuming than originally foreseen;
- (v) excessive time, effort, and money in developing "traditional" management plans that were overly detailed, and impractical to implement. Plans followed an exhaustive "inventory" model

and few addressed critical real issues facing the areas;

(vi) difficulty in transferring management of more protected areas to NGOs or to local organized groups. Experience made it evident that this is an initiative that requires the existence of several pre-conditions to be successful. For example: technical, administrative and financial capacity of NGOs and native communities to manage parks; absence of socio-economic and political conflicts and availability of other than government funds to finance recurrent costs. These conditions did not exist when the project started and it took almost three years of project execution to obtain a propitious environment to reach management agreements with four NGOs and one native community;

(vii) failure of the MDSMA to develop a coherent, integrated ecotourism policy and area user fees system to generate revenue to manage the areas;

(viii) while not discounting the complex legal issues involved, the failure to develop a capacity to enforce regulations regarding wildlife sale, illegal activities within parks, or to develop the legislation necessary to give park guards legitimate authority for enforcement were serious limitations; and

(ix) the tendency to expand the NSPA in terms of area and number of parks before the project-supported core system was established and in place. For this reason the relation between the project financed areas and the other areas of the NSPA became increasingly blurred since it was impossible to have global initiatives such as staff training exclusively for project-financed parks and ignoring the staff of other parks.

5.4 Costs and financing:

Throughout the life of the project the NSPA continued to expand, adding new (un-funded) areas. In 1998 there were a total of 26 areas representing 14% of the land area of Bolivia. While the project did not finance these areas, their rapid addition to the system, drew away important resources required to stabilize the core project NSPA areas agreed to under the SAR. The lessons learned are: (i) that a solid central core of well run, adequately financed areas with a functioning administrative unit should be in place before considering the addition of new areas to a system; (ii) subsequent additions of new areas should have a financial management plan in place before initiating; and (iii) expansion should proceed only in the context of a clear National Plan built with extensive community participation.

While the SAR foresaw the possibility of financing ongoing operational costs of the NSPA via interest on a fiduciary fund, it did not adequately assess the inherent political weakness of FONAMA, nor the legal political difficulties in establishing a “fee for service” ecotourism based program to make areas self sustainable. Additionally, while the need to establish a fund was foreseen, its development was hindered by: (i) the decision to waive the condition on effectiveness that a US\$5m be deposited in the account; (ii) the failure to understand the legal ramifications relative to management of the fund within Bolivia and managing funds outside the country; and (iii) the limitations on the types of investments permitted by National Law.

Although several donors had been willing to contribute to the Fiduciary Fund during the project’s implementation period, FONAMA was unable to establish sufficient credibility to raise the US\$35m required to generate sufficient income to finance the operating costs of 14 core areas of the SNAP. While donors wanted to contribute they were reluctant to actually deposit their

commitments in a fund that was generally considered to have been poorly managed. By the time the project closed, the balance in the fund was about US\$6.3m. However, additional pledges total: (i) US\$6m from four bilateral donors (Canada, Great Britain, USAID, Switzerland); and (ii) approximately US\$70m pledged by the GOB and donors over the next 30 years.

Sustainability and growth of the Fiduciary Fund and thus of the NSPA will depend on the political decisions of the current GOB regarding the future of FONAMA and of the entity that has replaced the DGB, called SERNAP (National Protected Areas Service). Moreover, the MDSMA has requested GEF financing for a follow up project which is currently under preparation. Success in getting it approved would imply the Fiduciary Fund would be reactivated under an improved or new institutional framework. This in turn would instill confidence in the donor community to honor their pledge¹.

The fact that the GEF did not require counterpart funding resulted in the GOB not budgeting any funds to finance items not eligible under the Grant such as import duties and local sales taxes. This delayed import of equipment and local purchases of goods.

*¹ The follow-up project, Bolivia GEF Sustainability of the National System of Protected Areas, has been approved in January 18, 2001. It supports a private foundation, FUNDESNAP, which will operate a trust fund with the resources transferred from FONAMA, USAID/PL-480 and GEF, for an initial amount of US\$10 million.

6. Sustainability

6.1 Rationale for sustainability rating:

In general, project sustainability and sustainability of the NSPA is “likely”. Although the gains in institutional strengthening were partially lost with the departure of trained staff, protection of the various parks was considerably enhanced with the investments made in goods and services. The training program for park rangers was successful.

Sustainability of the operational costs for the NSPA was designed to come from interest generated from a trust fund initiated with project assistance. A target figure of US\$35 million was to have generated US\$2.8m/annually, sufficient to finance the annual operating costs of fourteen core areas at an estimated rate of US\$200,000 per area per year. It was assumed that GOB and donor financing would support central programs and investments.

A viable NSPA (National System of Protected Areas) was established representing an area equivalent to about 14 per cent of the national territory; trained professionals remain in place in the protected areas; infrastructure and logistics equipment are contributing to the protection of the NSPA; the GOB has consistently committed a budget of approximately US\$3.0million/year to manage the parks system. In the long run, given the unique and reach of biodiversity of the NSPA plus the growing global interest on carbon exchange initiatives, prospects for long term funding from various donors are good. These possibilities will be further explored in the follow-up GEF project.

The SAR designed a sustainability component into the project. It was based on a fiduciary fund whose interest would pay ongoing operational costs of the areas after the project ended. In retrospect, FONAMA was not the most appropriate institution to be charged with raising and managing this fund and there were no provisions for it to have access to technical assistance. A

private entity (as recommended by the USAID study in 1996) would probably have been more efficient and effective at least in managing the fund. The DGB itself would have been also a more promising site to raise funds, as they had the data required to publicize the system. A fund raising unit within the DGB or even better, a contract with a private entity would have been a more logical, less bureaucratic approach.

Central program costs and administration were reduced from approximately 50% to 27% over the life of the project. While the successful wildlife management and genetics component were included within “central programs”, nonetheless too small a percentage of the funding got to the areas. In designing a future project, administration and central program ceilings should be more carefully defined in the SAR (PAD).

To be achieved via the establishment of a trust fund by the National Environment Fund (FONAMA). The interest earned by this trust fund will provide financing for recurrent costs of the NSPA.

6.2 Transition arrangement to regular operations:

A follow-up GEF operation in Bolivia – Sustainability of the National System of Protected Areas – has been approved by the GEF and the World Bank on January 2001, and became effective on April 2001. Drawing on the lessons learned from this operation, it aims at consolidating the core functions of the NSPA, including appropriate policies, regulations, incentive structures, adequate funding and institutional strengthening.

By project completion the fiduciary fund actually had about US\$5.1m in grants plus US\$1.2m in earned interest for a total of US\$6.3m. Several donors (the Netherlands and Germany) chose to maintain their contributions to the NSPA out of the fund until its credibility was established. These parallel contributions and pledges to support the SNAP come to US\$70m. The breakdown is as follows: (i) parallel financing of US\$20m over twenty years via the Netherlands; (ii) US\$12m parallel financing by Germany; (iii) US\$30 m over 30 years from a Carbon debt exchange arranged for Noel Kempf National Park; and (iv) various bilateral and private initiatives amounting to approximately US\$1 m per year over next three years. Beginning in 1998 the GOB committed approximately US\$ 270,000 to the NSPA.

“Parallel financing” supports the same objectives as the fiduciary fund (“ongoing operational cost of parks”) and could be rolled into the fiduciary fund in future if and when FONAMA regains credibility among the donor community.

In spite of this financial support available at the end of June 1998, the NSPA budget was reduced from US\$6.0 m per year (1997) to less than US\$4.0m between June and December 1998. Bolivia’s financial troubles led to further reductions to this level of financing, to an average US\$3m/year between 1999 and 2001.

Thus, while the NSPA was sustainable in reduced form at the end of the project, it was not sustainable at the optimal level of functioning foreseen in the SAR or that realized up until June 1998. There was a short term lack of continuity and a risk of a decline in the level of functioning as of June 1998. With the approval of the follow up GEF operation in January 2001, prospects for sustainability were greatly improved. The new project focuses primarily on sustainability issues.

The following factors limited the possibility of optimal sustainability of the SNAP in 1998:

- (i) the current GOB lost valuable time in preparing a proposal for a follow up project resulting in a time execution and funding gap between the first and the proposed follow up operation which would have built directly on the gains made in GEF I; and
- (ii) the protracted and ongoing instability of FONAMA led to donors skepticism in the fiduciary fund and in FONAMA's future ability to raise money and manage the fund. There were no new donations to the fiduciary fund since 1995. Until FONAMA is either substantially reorganized or replaced with an alternative entity, it is unlikely that interest income of the current fiduciary fund would generate sufficient operating revenues for the system.

The Bank received expressions of interest for a second phase of the GEF Biodiversity project, in May 1998. In June 1998 a follow up formal application was made, and GEF II planning began in August 1998. The project entitled "Sustainability of the Bolivian Protected Areas System" has been approved in January 2001 and became effective in April 2001. It aims at ensuring the sustainable management of the NSPA by establishing and strengthening: (a) the legal and policy frameworks; (b) the management capacities at the PA and central levels; and (c) the NSPA financing mechanisms.

7. Bank and Borrower Performance

Bank

7.1 Lending:

World Bank Performance was "satisfactory".

The SAR did not foresee the creation of a large Ministry of Sustainable Development and Environment (MDSMA/MDSP), nor of the establishment of a sophisticated National Directorate of Protected Areas with a high political profile. The Bank nonetheless demonstrated flexibility to the new circumstances by agreeing to modify the legal agreement to reflect the changes and new institutional environment. The Bank agreed to adapt the original project design to the substantial institutional structural changes of the public sector effected by the incoming government of 1993.

The most significant factors limiting the Bank's performance were: (i) the decision to waive the effectiveness requirement that the fiduciary account should have at least US\$5.0 in deposit and managed by an International Investment firm; (ii) not fully understanding at appraisal the limitations of the types of investment that GOB could legally make with resources of the fiduciary fund; and (iii) not realizing at appraisal the extent of the technical expertise required and costs to manage a fiduciary fund.

7.2 Supervision:

World Bank Performance was "highly satisfactory".

The Bank was particularly innovative in the selection of consultants for supervision missions, drawing on experienced individuals executing similar operations in other countries such as Ecuador and Venezuela thus promoting exchange of information among these projects and avoiding duplication of efforts. As a result, Venezuela is introducing Bolivia's park guard training program, while Ecuador is attempting to replicate the Bolivian model for Regional Committees. Ongoing local supervision by a consultant specialist also allowed for prompt identification of

problems, compliance with work plans and Bank procedures, and technical assistance. In addition, supervision missions were of particular assistance to the GOB in: (a) assisting in defining budgets and reassigning of categories; (b) resolving financial issues relating to taxes, procurement, and procedures; (c) identifying technical assistance available to help solve deficiencies identified during missions.

In addition, as the developing DGB evolved and matured, developing a capable financial management unit in the process, the Bank supported the establishment of a system of accountable cash advances from FONAMA to the DGB which resulted in a steady improvement in disbursements generally and to timely payments to protected areas in particular. This pattern of improvement was continuous until the unfortunate dismissal of FONAMA's project coordinator in June 1997.

7.3 Overall Bank performance:

The World Bank performance was "satisfactory". Intensity and frequency of supervision missions was programmed to assist the GOB solve implementation issues in a timely fashion. The skills mix of supervision missions reflected the complexity of the project and the Bank with Swiss support provided both local and central supervision and technical assistance.

Borrower

7.4 Preparation:

The initial performance of the project coordination unit was "satisfactory".

7.5 Government implementation performance:

The performance of the GOB at the level of the Ministry of Sustainable Development and Environment was less than satisfactory since it was responsible for the frequent changes in FONAMA's management authorities. These changes impacted adversely the efficiency of project execution, and, more specifically, were a devastating factor in the operability of the fiduciary fund. Since FONAMA acted as the project's financial coordinator, any change in its management resulted in protracted and prolonged delays in timely payment of staff salaries and of bills for goods and services.

Suggestions and recommendations from supervision missions were usually followed up on with actions. The success in meeting project objectives is a matter of record. Also, for most of the execution period the project management unit within FONAMA was very efficient in ensuring that neither the DNCB nor the parks were late in receiving funds.

The GOB delayed requesting a second phase of the GEF project, that would have built on the successes realized. The failure to make a timely funding request for a follow up operation or to otherwise ensure adequate funding after the project terminated led to a contraction of the NSPA which resulted in staffing reduction and delays in payment of salaries.

7.6 Implementing Agency:

Although the DGB showed capacity to manage the program, the frequent changes in FONAMA had a major negative impact on the project execution making its performance unsatisfactory. Nevertheless, the DGB was successful in coordinating and managing the project activities. Work plans, budgets and reports were usually received on time. Project execution at the field level and at headquarters was carried out effectively; all audits were satisfactory and usually timely; and

relations with Bank technical staff and visiting missions were excellent.

However, this performance dropped significantly after June 1997, when the project coordinator and his staff were dismissed. After this, protracted delays (up to three months) in meeting salary and contract obligations became common. Delays in payment of salaries obligated many trained staff to leave the system. In addition, there was an ongoing lack of transparency in filling some key staff positions throughout the project, as well as various questions on the awarding of service contracts in a transparent manner.

FONAMA failed to generate sufficient funds via the fiduciary fund to support immediate ongoing operations, its failing attributable to its instability, weakness and its eventual collapse. The ongoing instability of FONAMA upper management hampered its ability to generate funds, or to manage well the fiduciary fund. For most of the project life FONAMA had neither a clear mandate, nor political support. During the life of the project there were at least fifteen acting directors, and no less than 4 full scale "reorganizations" most of which were only partially carried out.

7.7 Overall Borrower performance:

The Borrower's overall total performance is rated "satisfactory".

The system of extending accountable advances to protected areas for their operating costs worked well, and was a great improvement over the original centralized system operated by FONAMA. With the exception of a notable lapse in 1998, project disbursements to area personnel proceeded efficiently, and decentralized administration capacity was developed.

8. Lessons Learned

The following are the key lessons learned from execution of the project:

- (a) Expansion of a NSPA: Before fostering the expansion of a national system of protected areas, a core of well run, adequately functioning areas should be in place. Moreover, expansion should be based in the context of a national biodiversity policy and strategy, recognizing the limitation of available financial resources and the capacity to enforce protection in the existing areas;
- (b) Institutional Framework: A project's design should allow a margin of flexibility to adapt project execution to a new institutional framework as speedily as possible without compromising the original project's objectives. A "politically solvent" institutional framework (meaning one that is not bound to be changed by political interests) is imperative for a project to be successful. This is not easy to have in developing countries with fragile public sector entities subject to be replaced or reorganized whenever there is a change in government authorities. Moreover, when the reshaping of the public sector is as broad as the one that took place in Bolivia in 1993 a covenant in a project legal document requiring prior consultation with the Bank has limited enforcement effect. When a government commits financial resources and designates a technical person with a high political profile to manage a project, the probability of success is high. Lacking any of the these elements, prospects are reduced considerably. A corresponding commitment to the renewing of the contracts of technical personnel is also important. Signing authority should ideally be confined to the project accountant and the National Director of Protected Areas. The latter should be selected via open competition. Higher authorities should focus on broad policy

issues, and approval of the annual operating plans. In its initial stages the project suffered from having up to 20 authorizations required for simple disbursements;

(c) Permanent Staffing: Successful implementation requires a core of qualified permanent staff by the time the operation is approved or at least the existence of a minimum number authorized positions that can be filled by the time execution starts. While the use of consultants may be a temporary measure to fill staffing gaps or to provide expertise not available in the institution, it should not be utilized as a way to fill line positions on the long term. Similarly, “commitment” to a course of action should be continuous over the course of changes in government. When an incoming government reestablished priorities and strategies without building on the success of previous experience, problems can quickly result and valuable time, efforts and resources are lost.

(d) Public Participation: while public participation is a legal requirement in Bolivia, the difficulty and complexity of dealing with indigenous communities in remote protected areas is often underestimated. Two approaches successfully adopted by the project were: (i) to select the park wardens by and from local communities; and (ii) establish PA management committees where some of their members represent the local communities;

(e) Sustainability: Fiduciary Funds require more detailed preparation work and the involvement of qualified experts. Financial sustainability was to have been assured by a fiduciary fund established and managed by FONAMA. However, the project’s design failed to identify and anticipate the complexity of such initiative in an institutional environment highly influenced by politics, without expertise in international investments and without the means to pay for such expertise if it became available. In planning for sustainability via a fiduciary fund, more attention should be paid to: (i) the institutional strength and expertise of the executing agency; (ii) constraints of existing laws on the types of investments which can be realized locally and abroad; (iii) foreign tax issues for external investments; and (iv) the composition of the board that would manage the fund; and

(f) Management of Protected Areas by NGOs/Communities: The Project gave credence to the fact that protected areas run by qualified local NGOs and/or indigenous groups were more effectively managed. It was also evident that this is only possible while there is external financing available. When monetary resources become scarce, it is very difficult for these groups to provide their own funds and to maintain any meaningful presence in the area. Additionally, unless the NGO or indigenous group has a member technically qualified and experienced to act as park administrator and unless the group has had some previous experience in managing a protected area, the chances for success would be minimal.

9. Partner Comments

(a) Borrower/implementing agency:

The formation of the local “parks development committees” was a key element in the successful development of the NSPA. Their participation was instrumental in achieving the positive results obtained, and in providing for some continuity during changes of government. Their role should be reinforced and expanded.

The process of selecting park wardens from the surrounding communities and with their full

participation in the selection process was vital to the adequate functioning of the warden system.

Acceptance of the areas within the NSPA varies greatly throughout the system. The difference relates both to the number and location of the communities in the area, and to the extent they participate in planning, management and economic benefits.

(b) Cofinanciers:

Swiss Development Corporation contributed with UD\$3.85 million.

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

The SAR foresaw all areas being managed by NGOs. This was not always possible given legal constraints relating to enforcement, resentment of local communities, existing socio-economic issues, competing demands of regional groups and unavailability of competent and experienced NGOs in some areas. The GOB sensibly expanded the concept. They allowed any regional organized group to bid for the management contracts, while retaining temporary control of conflict areas. This allowed regional indigenous communities to participate fully in planning and management.

While there was no clear cut superiority in terms of management types selected, (efficiency of NGOs/local organized groups versus the Central Government) the following principles do apply: (i) areas run by NGOs/local indigenous groups were demonstrably more capable of attracting external funding; (ii) the most important single criteria for management effectiveness was the quality of the area administrator; and (iii) areas managed by NGOs or native groups were more successful in preventing extractive incursions (mining, logging) into protected areas.

10. Additional Information

This is the Implementation Completion Report (ICR) for the Biodiversity Conservation Project partially financed by a GEF Grant (TF28620-BO) in the amount of SDR 3.1 million approved on December 21, 1992, and made effective on July 13, 1993. Cofinancing for the project was provided by the Government of Switzerland with a grant of SWF 5.2 million approved on May 4, 1993. The original Closing Date for both grants was June 30, 1998, however, an extension to December 31, 1999 was approved on June 24, 1998. The GEF and Swiss grants were fully disbursed by end December 1998.

The ICR was prepared in 1999 by Gary Hunnisett, Environmental Specialist at the Bolivia Resident Mission. It was reviewed by the project's Task Manager Cesar Plaza (LCSES), Richard Huber (LCSES), Pierre Werbrouck (LCSES), Deborah Bateman (LCCBO), and by Jean Francois Cuenod representing the Swiss cofinancier. Its final version was further reviewed by Elizabeth Monosowski (LCSES) and Karin Shepardson (LCSES) in June 2001. The Borrower prepared a separate report.

Preparation of this ICR is based *inter alia* on the Staff Appraisal Report, the Grant Agreement and its amendments; reports generated by supervision missions; the independent midterm evaluation carried out by the International Conservation Union (IUCN); reports submitted by the GOB and FONAMA; annual audit reports; and observations and comments of the Swiss cofinancier. The Borrower reviewed and had no further comments to this report.

As the report was prepared by staff at the Resident Mission there was no special ICR Mission.

Annex 1. Key Performance Indicators/Log Frame Matrix

Outcome / Impact Indicators:

Indicator/Matrix	Projected in last PSR	Actual/Latest Estimate
Recruit central and area personnel. Train and equip appropriately	1997	Warden system equipped and trained by 1997. DNCB staffed and equipped, but both suffered turnovers at end of project.
Declare two new protected areas	1998	Madidi and Chaco established in 1995
Adequate functioning of 7 protected areas	1998	Level of functioning declined in 1997-98. Inadequate funds for administration in 1998.
Develop Wildlife Management Programs	1998	Successful programs in vicuñas and crocodiles. Others in preparation.

Output Indicators:

Indicator/Matrix	Projected in last PSR	Actual/Latest Estimate
In addition to the 2 new areas foreseen to be created in the SAR, the GOB planned for 3 more.	1997	A total of 5 new protected areas were created.
In addition to the 9 areas foreseen to be under management in the SAR, the GOB planned for 14.	1997	A total of 14 areas were under management at the end of the project.
While the SAR called for "capturing indigenous knowledge", the GOB decided to expand on the concept to collate such knowledge and protect it as a national patrimony.	1997	GOB created a genetics unit that enacted norms and controlled the use of genetic resources and native knowledge.

¹ End of project

Annex 2. Project Costs and Financing

Project Cost by Component (in US\$ million equivalent)

Project Cost By Component	Appraisal Estimate US\$ million	Actual/Latest Estimate US\$ million	Percentage of Appraisal
Support for the Implementation of the National System of protected Areas (SNAP).	1.89	1.69	24
Establishment of priority Protected Areas.	4.71	4.91	60
Alternative Management of Natural Resources in Buffer Zone.	0.13	0.13	1.65
Strategies for Long Term Funding of Protected Areas.	0.01	0.11	0.13
Monitoring and Evaluation.	0.10	0.10	1.26
Support for Project Implementation and Supervision.	0.80	0.80	10.13
Unallocated	0.26	0.00	3.29
Total Baseline Cost	7.90	7.74	
Physical Contingencies	0.10	0.12	1.2
Price Contingencies	0.35	0.45	4.2
Total Project Costs	8.35	8.31	
Total Financing Required	8.35	8.31	

Project Financing by Component (in US\$ million equivalent)

Component	Appraisal Estimate			Actual/Latest Estimate			Percentage of Appraisal		
	Bank	Govt.	CoF.	Bank	Govt.	CoF.	Bank	Govt.	CoF.
GET	4.50			4.39			97.6		
SDC (Swiss Development Corporation)			3.85			3.85			100.0

Annex 3. Economic Costs and Benefits

N/A

Annex 4. Bank Inputs

(a) Missions:

Stage of Project Cycle	No. of Persons and Specialty (e.g. 2 Economists, 1 FMS, etc.)		Performance Rating	
	Month/Year	Count	Specialty	Implementation Progress Development Objective
Identification/Preparation				
	1993	24.8 Staff Weeks	N/A	S S
Appraisal/Negotiation				
	1993	9.7 Staff Weeks	N/A	S S
Supervision				
	March 1994	2 Persons	- Environment Specialist - Program Administrator	S S
	Sept/Oct 1994	5 Persons	- Environment Specialist - Parks Management - Financial Management	S S
	July 1995	4 Persons	- Environment Specialist - Natural Resources Management - Institutional Management	S S
	Apr/May 1996	5	- Environment Specialist - Natural Resources Management - Community Development - Program Administrator	S S
	Nov 1996	3	- Environment Specialist - Program Administrator - Natural Resources Management	S S
	Oct/Nov 1997	4	- Environment Specialist - Program Specialist - Financial Specialist	S S
ICR	N/A	N/A	N/A	

(b) Staff:

Stage of Project Cycle	Actual/Latest Estimate	
	No. Staff weeks	US\$ ('000)
Identification/Preparation	24.8	47.8
Appraisal/Negotiation	9.7	21.9
Supervision	63.9	178.6
ICR	4.0	12.7
Total	98.4	261.0

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

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

	Rating				
<input checked="" type="checkbox"/> <i>Macro policies</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<input checked="" type="checkbox"/> <i>Sector Policies</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Physical</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Financial</i>	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Institutional Development</i>	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Environmental</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA

Social

<input checked="" type="checkbox"/> <i>Poverty Reduction</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<input checked="" type="checkbox"/> <i>Gender</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<input checked="" type="checkbox"/> <i>Other (Please specify)</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA

Indigenous People

<input checked="" type="checkbox"/> <i>Private sector development</i>	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Public sector management</i>	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Other (Please specify)</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA

Project Sustainability

Project Sustainability

Annex 6. Ratings of Bank and Borrower Performance

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

6.1 Bank performance

Rating

☒ Lending

☐ HS ☒ S ☐ U ☐ HU

☒ Supervision

☒ HS ☐ S ☐ U ☐ HU

☒ Overall

☐ HS ☒ S ☐ U ☐ HU

6.2 Borrower performance

Rating

☒ Preparation

☐ HS ☒ S ☐ U ☐ HU

☒ Government implementation performance

☐ HS ☒ S ☐ U ☐ HU

☒ Implementation agency performance

☐ HS ☐ S ☒ U ☐ HU

☒ Overall

☐ HS ☒ S ☐ U ☐ HU

Annex 7. List of Supporting Documents

Study	Purpose	Status
Strategy of Management of PAS.	Develop Administrative capacity.	Completed
Assess information requirements for management SNAP.	Provide a numerical basis for decision making and budgeting.	Completed
Identify hardware and software requirements.		Completed
Agreements to access existing data bases		Completed
Information system on SNAP	Operational basis for decision making	Completed
Evaluation of biologic/ecological integrity of system.	Evaluate the completeness and representatively of SNAP	Completed
Proposals for expansion and modification SNAP.	Consolidation of SNAP	Completed
Develop training modules and programs for guards.	Develop highly trained park managers and wardens.	Completed
Work Plan for training and annual evaluations.	System to ensure adequate execution and planning.	Completed
Develop procedures and regulations for SNAP personnel.	Policies and procedures uniform and understood by personnel.	Completed
Develop an effective radio communication system.	Coordinate control and supervision in PAS.	Completed
Develop guidelines and expertise to develop uniform management plans.	Improve expertise of park personnel.	Completed
Prepare management plans for following areas: <ul style="list-style-type: none"> • Carrasco • Amboro • Noel Kempff • Eduardo Avaroa • Ulla Ulla 	To serve as a foundation for planning, budgeting and PA development.	Completed Completed Completed Completed Completed
Develop annual operating plans for 8 PAS	Implement management plans	Completed
Establish two new PAs in: <ul style="list-style-type: none"> • Alto Madidi • Gran Chaco 	To complete ecological coverage of the SNAP	Completed
Design of an environmental education program with trained DGB personnel.	Develop capacity of DGB to manage outreach program.	Partial
Review of existing uses of wildlife and evaluate pressures and recommend management practices.	Develop knowledge base to begin management.	Completed
Develop pilot projects in wildlife management.	Initiate sustainable harvest system.	Completed
Identify germoplasm in need of conservation.	To serve as a basis for management and protection.	Completed
Develop long term funding strategy and capability for SNAP.	To ensure sustainability of system.	Partial
Annual reviews and evaluations.	To provide basis for improved management.	Completed

MAP SECTION

