

# ENVIRONMENTAL AND SOCIAL PROTECTION IN THE SANTA CRUZ-PUERTO SUÁREZ CORRIDOR

(BO-0033)

## EXECUTIVE SUMMARY

<b>Borrower:</b>	Republic of Bolivia		
<b>Executing Agency:</b>	Ministry of Sustainable Development and Planning- MDSP		
<b>Amount and source:</b>	IDB (FOE):	US\$	21 million
	Cofinancing (Nordic Fund):	US\$	3 million
	Local:	US\$	2.5 million
	Total:	US\$	26.5 million
<b>Terms and conditions:</b>	Amortization Term:	40	Years
	Grace Period:	10	Years
	Disbursement and Execution:	10 <sup>1</sup>	Years
	Interest Rate:	1%	First 10 years
		2%	Last 30 years
	Inspection and monitoring:	1%	
	Commission on credit:	0.5%	
	Currency:	Those that are part of the FOE	
<b>Objectives:</b>	The objectives of the Project are to minimize, control, counteract and compensate for all direct, indirect, cumulative, long term or synergic socio-environmental types of impact caused by the implantation and operation of the Santa Cruz – Puerto Suárez highway corridor. At the same time, the Project will promote environmental conservation and a process of sustainable social and economic development in the area of influence, in accordance with Bolivian law and Bank standards.		
<b>Description:</b>	The Project consists of: (i) the mitigation of indirect impacts of the Highway project through titling and registry of lands in the Direct Area of Influence (AID) of the Corridor, important supportive actions for indigenous communities, for protected areas and forests, for institutional strengthening and promotion of municipal development in the six municipalities within the AID, and actions		

<sup>1</sup> (See Section I, ¶ 3.89 and The period for Project disbursements will be ten years, starting on the effective date of the Loan Agreement, for the Executing Unit and the Financial and Socio-Environmental Audits and four and one-half years for the rest of the Project activities and subprograms (see Table III-2 which contains a detailed timetable of disbursements).

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which help to incorporate the affected population or those interested in development of the Highway project as well as environmental conservation, and in (ii) the mitigation of direct impact through repayment for losses caused because of cession of the right of way and the protection of archeological and cultural Heritage, as well as dissemination of information on the project and establishment of channels for dialogue with local actors. Actions for environmental supervision and auditing are also planned within the Project to cover activities involved in the public works, and periodic audits to guarantee execution in accordance with environmental standards.

**Bank strategy in the country and sector:**

The central goal of the Bank's strategy in Bolivia—defined in Country Document (GN-2020) and approved by the Board on June 9, 1999—is to combat poverty. This will be accomplished through three types of actions that are consistent with three of the four main themes in the Government's Operative Plan of Action 1997-2002: (i) economic growth and the creation of opportunities (opportunity); (ii) development of human capital and access to basic social services (equity); and (iii) governability and consolidation of reforms (institutionality).

The proposed Project fits within three of the strategic guidelines proposed by the Bank for Bolivia, in order to foster economic growth and create opportunities in a sustainable manner, promote greater social equity, and optimize the use of natural resources. At the same time the project stimulates community participation in program development as well as provides training to improve participation in the political game of democracy. Management mechanisms will also help to consolidate reforms through decentralization.

The proposed Project also fits within the Bolivian Strategy for Poverty Reduction (EBRP) by guaranteeing legal security as regards access, tenure or use of assets, modernization of the land census (cadaster), promotion of policies and actions oriented towards improving opportunities for women, institutional strengthening of executors and co-executors, broadening of opportunities for economic participation, and strengthening of indigenous organizations.

**Social and Environmental oversight:**

This is an environmental project to mitigate the direct and indirect socio-environmental impact of the Highway project. During the preparation of the Highway project and the current project, several environmental studies were carried out that varied in depth: (i) a first Environmental Impact Assessment Study (EEIA), elaborated jointly with road engineering studies; (ii) a Strategic Environmental Assessment (EAE) and the revision and supplementing of the previous EEIA; (iii) a special study on the System for Regulation of Land Tenure; (iv) the Operations Plan which describes Project

actions in detail; (v) a report from a high-level Advisory Panel; and (vi) a new EEIA done by a private consortium based on a study of the highway's final design. The conservation strategy adopted will focus on the following fronts: (i) clarifying property rights of the land and returning large extensions of land suitable for forestry management to the state; (ii) organizing territorial occupation; (iii) strengthening management of protected areas, particularly tasks involving environmental protection; (iv) strengthening the auditing system of forests and controlling illegal clearing of wood; and (v) promoting practices for sustainable use of natural resources. The integral versions of the Strategic Environmental Assessment and the EEIA Revision have been available on the Bank's website since August 4, 2000.

See: <http://www.iadb.org/regions/re1/eia/bo0036/index.htm>. The Project Report was sent to the "Public Information Center" (PIC) on March 4<sup>th</sup>, 2002 and approved by CESI on February 19, 2002.

#### **Benefits:**

As this is an environmental project, it is obvious that actions will benefit the environment. In the case of non-execution, these benefits would not be produced. The expected benefits are: (i) an improvement in the administration of property rights for lots and regulation of land use; (ii) greater legal security due to incentives to promote more sustainable use of soil resources while assuring the property rights of small farmers and indigenous landholders; (iii) an improvement in systems of registration and titling of real estate that will permit greater efficiency in collecting property taxes; (iv) the return to the state of large extensions of land suitable for forestry management; (v) organization of territorial occupation; (vi) strengthening of auditing of forests and control of illegal clearing and logging; (vii) strengthening of management of protected areas; (viii) promotion of practices for sustainable use of natural resources; (ix) training of municipal governments so that they can show greater leadership in terms of meeting new social demands and responsibilities; (x) training for social organizations to improve the quality of citizen participation; (xi) promotion of the conservation of archeological and cultural heritage; and (xii) repayment of losses to those directly affected by the Highway project at a higher rate than under current conditions.

#### **Risks:**

The principal risks of this Project are: (i) the weak institutional capacity of public bodies and private executors and co-executors to carry out Project actions. This risk will be minimized through specific actions to strengthen institutions; (ii) lack of interest in the Project's execution on the part of the incoming administration. This risk will be minimized by establishing clauses in the loan contract for the Highway project which conditions Project disbursements to compliance with goals in advance in the present

Project; (iii) the risk of social or environmental incidents/disasters with serious international repercussions. This risk will be minimized by establishing mechanisms to prevent and resolve conflicts before a given situation gets out of hand; (iv) the risk that the legal framework will be modified in a way that conflicts with Project objectives. This risk will be minimized since contractual commitments override possible changes in legislation; (v) the risk of institutional instability with changes in the principal executing bodies. The establishment of program goals that are linked to disbursements minimizes this risk; (vi) the risk that the project will not be carried out or will be postponed, and that the right of way that has been registered as state land will be occupied yet again by invaders.

**Special  
Contractual  
Conditions:**

In addition to standard contractual obligations that must be met before the first disbursement, the following special contractual conditions will also be established before the first disbursement:

- 1) Project Executing Unit (UEP) created and functioning;
- 2) Proof that the agreements between the Executing Agency and the following entities, in virtue of which the Executor commits to transferring Project resources to these entities, and they in turn commit to utilizing these resources to carry out activities within their responsibility, in compliance with terms agreed upon with the Bank in the Loan Contract have taken effect:
  - (i) with the National Institute for Land Reform (INRA) and Judiciary Branch Judicative Council (CJ), to carry out the execution of the Program to Title and Register Land;
  - (ii) with the Foundation for Technological Farming and Forestry Development of the Humid Tropics (FDTA-TH) for the execution of the subprogram of Productive Initiatives;
  - (iii) with the National Service of Protected Areas (SERNAP) in order to execute the Subprogram for Management of Protected Areas;
  - (iv) with the Forestry Superintendence to carry out the Subprogram for Forest Conservation;
  - (v) with the Foundation for the Humid Tropics to carry out the Subprogram on Showcase Projects;
  - (vi) with the National Highway Service (SNC), INRA and the Department of Santa Cruz (PSC) for the Losses Compensation Program;
  - (vii) with the SNC and the Ministry of Education, Culture and Sports to execute the Program for the

Protection of Archeological and Cultural Heritage; and  
 (viii) with the SNC to carry out the Information and Social Interaction Program and activities of the Environmental Supervision authority.

- 3) evidence that the Participation and Consultation Committee (CPC) has been created (in accordance with terms agreed upon with the Bank), including a Land Subcommission (§ 3.20 An 3.24);
- 4) evidence that official SNC directorate have been issued in regards to establishing environmental standards in compliance with the Program Operations Plan, that must be implemented for all construction work to take place along the corridor.;
- 5) presentation of an updated Project Operations Plan that meets Bank standards.

**Prior conditions placed on the disbursement that equals US\$ 1,600,000 of the resources for financing assigned to the Subprogram for Indigenous Organizational Development, for the creation of the Fiduciary Fund to Strengthen Indigenous Organizations:** In addition to compliance with standard and special conditions prior to the first disbursement and after the condition that the administration contracts referred to in the **Other Special Conditions** section of this Executive Summary, come into effect, presentation of evidence that a contract has been signed to set up the Fiduciary fund to Strengthen Indigenous Organizations. (§2.10, 2.11, 3.41, 3.41).

**Prior conditions for the disbursement of the equivalent of US\$ 1,970,000 of financing resources assigned to the Subprogram for Management of Protected Areas to set up a Fiduciary Fund to support the Management of Protected Areas:** In addition to compliance with standard and special conditions prior to the first disbursement, and after the condition that the administration contracts referred to in the **Other Special Conditions** section of this Executive Summary, come into effect, evidence is required that a contract has been signed to create a Fiduciary Fund to support Management of Protected Areas (§2.17, 2.18, 3.42).

**Prior conditions for the disbursement of the equivalent of US\$ 1,500,000 of financing resources assigned to the Subprogram for Forest Conservation to create the Fiduciary Fund for Forest Conservation:** In addition to compliance with standard and special conditions prior to the first disbursement, and after the condition that the administration contracts referred to in the **Other**

**Special Conditions** section of this Executive Summary, come into effect, evidence is required that a contract has been signed to create a Fiduciary Fund for Forest Conservation (§2.19, 3.45, 3.46). and

**Conditions for the Principal Coexecuting Entities, the beneficiary executing agency, beneficiary entities and the entities in charge of the administration of the Fiduciary Funds, that participate in the project.**

(a) In all agreements and administration contracts signed by the Executing Agency for this Project, among other conditions, the following must be included when applicable:

- (i.) The organizations or groups of indigenous communities participating in the project may receive goods and services provided by project funds, if they previously present the Executing Agent and through it to the Bank, proof of being legally established;
- (ii.) The compromise by all Principal Coexecuting Entities, the beneficiary executing agency and beneficiary entities to make sure that all goods and services to be acquired with the Project resources will be used exclusively in the execution of the corresponding Program, Subprogram or Activity;
- (iii.) The right of the Borrower, the Executing Agency and the Bank to be able to examine the goods, places, works and constructions of any Program, Subprogram or Activity;
- (iv.) The obligation to provide all reports and information that the Borrower, the Executing Agency and the entities in charge of the administration of the Fiduciary Funds (FF), whenever they require in relation to any Program, Subprogram or Activity to be executed. The information to be provided to the entities in charge of administering the FF will be according to the administration contracts signed between the parties;
- (v.) Provide accountability to the Executing Agency on all resources received and prepare the financial statements required to them;
- (vi.) Maintain adequate files of all documentation and proof of all contracts and expenses acquired with Project financing and keep it at hand for the analysis by external auditors and/or Bank staff.
- (vii.) Maintain separate and exclusive bank accounts for the administration of any Project related resources;
- (viii.) Right of the Executing Agency to suspend disbursements to the Principal Coexecuting Entities, the beneficiary executing agency, or the beneficiary entities, as

it may correspond, whenever the obligations they have accepted under this Program are not followed;

- (ix.) The proceedings for goods acquisition, the execution of works and contracting of services, according to what is established in the Loan Document ;
- (x.) The obligation by the entities in charge of administration of the FF to provide reports and information to the Executing Agency, the Bank and the Principal Coexecuting Entities whenever they request it; and
- (xi.) The obligation of the UEP to transfer the resources to the beneficiary entities will be done according to the Annual Operation Plans (POA) and in such a way that there is transparency in the delivering of resources and their adequate use. Such process will be specified in the corresponding administrative contracts.

(b) In addition, the Administration Contrats for the Fiduciary Funds for the Indigenous Organizational Development , Protected Areas Managemnt and Forest Conservation Subprograms, shall include:

- (i) corresponding terms and conditions previously agreed upon with the Bank
- (ii) the presentation of POA, reports and audits requeruires by the Executing Agency and the Bank;
- (iii) Sanctions mentioned in paragraph 3.67 of the Loan Document;
- (iv) The FF execution mechanisms and structure;
- (v) The obligation to return the remaining balance of resources of the FF to the Borrower at the end of their term. This obligation must also be included in the Fiduciary contract.

**Other special contractual conditions:** The Borrower must present the following, to the Bank's satisfaction:

- (a) within the first eight (8) months after the Loan Contract enters into effect, present the draft administration contracts and Fiduciary contracts, to which the Second Condition below and paragraphs 3.41, 3.43 and 3.46 of this document refer to;
- (b) within the first nine (9) months after the Loan Contract enters into effect, the following:
  - (i) present evidence that the parallel cofinancing contract between the "Nordic Develoment Fund" and

the Republic of Bolivia has entered into effect, for partial financing of the local counterpart of the Project;

- (ii) present evidence that the following administrative contracts between the Executing Agency and the mentioned entities have entered into effect including all subjects convened with the Bank: (1) with the Fund for the Development of the Indigenous Peoples of Latin America and the Caribbean – Indigenous Fund (IF) for the execution of the activities to be financed through the FF for the Strengthening of Indigenous groups; (2) with SERNAP and the Foundation for the Development of the National Protected Areas System (FUNDESNAP) for the execution of the activities to be financed through the FF to support the Protected Areas Management; and (3) with the Forestry Superintendence and the Foundation for the Protection and Sustainable Use of the Environment (PUMA Foundation), for the execution of those activities to be financed through FF to support Forest Conservation (together known as Administration Contracts).
- (iii) That the agreements are into effect between the Executing Agency and the Coordination of Ethnic Peoples of Santa Cruz (CPESC), the indigenous organizations: Organización Indígena Chiquitana (OICH), Central de Comunidades Indígenas de Chiquitos – Turubo (CCICH-T), Asociación Comunitaria (CICOL), Central Indígena Reivindicativa de la Provincia Ángel Sandoval (CIRPAS), Central Ayoreo Nativo del Oriente Boliviano (CANOB) and Capitanía del Alto y Bajo Izozog (CABI), and these indigenous organizations as well: Central Indígena Chiquitana de Pailón (CICHIPA), Central Indígena Chiquitana Amanecer Roboré (CICHAR); Central Indígena Chiquitana de la Provincia Germán Busch (CICHGB) by which agreements these beneficiary entities will receive goods and services with funds for the support of Organizational Development and Productive Initiatives, and additionally for CPESC, for the support of Management Plans for Indigenous Lands (TCOs).
- (c) During the execution period for the Project, POA reports, quarterly, biannual and yearly reports for the project and financial statements (paragraphs 3.61, 3.80, 3.62 and 3.65) will be presented. Meetings will be also held according to what is established in paragraphs (3.64 and 3.65). In order to present the mentioned reports to the Bank, their preparation must consider the specific time



schedule of each specific activity, subprogram or program.

**Classification of social equity and poverty:**

This operation qualifies as a project to promote social equity as described in the key objectives for Bank activity contained in the report on the Eighth Compensation Report (document AB-1704) (see ¶1.59 to 1.61). This operation does not qualify as a project oriented towards poverty reduction (PTI). The borrower will not utilize the 10% additional financing.

**Exceptions to Bank policies:**

The execution period of this Project is ten years, with disbursement dating from the effective date of the Loan Contract, with the objective of allowing the execution of the following subprograms during this same period: Organizational Development, Management of Protected Areas and Forest Conservation, and disbursements for activities related to the control and supervision of utilization of resources disbursed specifically for these subprograms. The Bank usually does not permit these types of terms and disbursements as regards the duration of specific projects and traditional global loans (GN-750-1, par. 1.05 (a) and 2.08 (a) and GN-2085-2, Section III. B). With this in mind, the following is proposed as regards execution of these subprograms: (a) that the execution period previously indicated also apply to Fiduciary funds that will be set up to finance the three subprograms; and (b) that nearly the total amount of resources assigned to these subprograms be disbursed at one time; that the interest earned from these resources be used for the execution of these subprograms; and that the period of justification for the utilization of the totality of these disbursements also be ten years.

**Acquisitions:**

Standard Bank procedures will be applied as regards purchase of property and to execute Project works. International bidding procedures will be used when utilizing Bank resources to purchase property with a value equal to or greater than US\$ 350,000, and the contracting of works with a value equal to or greater than US\$ 3,000,000.

It should be further noted that the Foundation for Technological Farming and Forestry Development of the Humid Tropics) will be subject to the Bank's standard procedures for public sector institutions in this regard. This entity will be subject to all local legislation applicable to the public sector for the acquisition of goods and services under the limits at which the Bank's policy requires international public tenders. The Borrower undertakes to supervise this entity through the Executive Body, as though it were a public sector institution, with regard to the use of the procedures and the legislation indicated in this paragraph.

The acquisition of consulting services will be carried out in

accordance with standard Bank procedures and procedures outlined in Document GN-1679-3. Consulting services will be acquired through international public bidding for consulting services equal to or greater than US\$ 200,000. As regards cases of Selection Based on Quality and Cost for consulting firms in this Project, the relative weight of the price as evaluating criteria cannot be greater than 20%, and the weight placed on the technical element or quality of the offer must be at least 80%.

## **I. FRAMEWORK OF REFERENCE**

### **A. The Santa Cruz – Puerto Suárez Transport Corridor**

- 1.1 The department of Santa Cruz presents considerable potential in terms of agriculture and industry, which would support diversification of Bolivia's economic base, create new development poles and generate greater employment opportunities. During the past decade, the population in this department grew at a higher rate than the national average. Cultivated land area also expanded notably and this is the department that contributed the most to the GDP. At the present time, agricultural production in this department is equal to half of the total agricultural production in the entire country.
- 1.2 In addition to its direct importance to the local economy, the Santa Cruz – Puerto Suárez highway forms part of one of the integration corridors that will link Bolivia to MERCOSUR, particularly to Brazil and Paraguay, and through the Paraná – Paraguay waterway, with Argentina, Uruguay and markets in Europe and North America. This route of nearly 600 kilometers between the city of Santa Cruz and the border with Brazil (next to the Brazilian city of Corumbá), is connected by railroad and by a road in terrible condition. The road is impassable during the rainy season.
- 1.3 As regards the railroad, the Eastern Railroad Company (EFO) exercises a virtual monopoly, and this along with the deficient infrastructure means high prices and a very inefficient service. After a recent capitalization, the situation improved somewhat when the EFO invested. However, investments were restricted to large cargo integrated into logistical systems (basically soy). The majority of the local economic actors pay a high price for a low quality service.
- 1.4 As far as the highway is concerned, its current state has considerable impact on the high cost of transporting people and goods, and during the rainy season the region is totally cut-off (and partially cut-off during the rest of the year). This is why the improvement of this highway is a high priority within the government's national development plans.
- 1.5 The improvement of the highway will bring the following results (i) territorial expansion, intensification and diversification of agricultural production, and the growth of agroindustry for export; (ii) exploitation of the forest and industrialization and export of wood products; (iii) exploitation of minerals and manufacture of cement (already being produced, but without reliable transport to Santa Cruz and intermediate points); (iv) operation of the tax-free zone that has been set up in Puerto Suárez; and (v) greater utilization of existing tourism installations in the Puerto Suárez region and others that could be developed in places that UNESCO considers to be part of the cultural Heritage of humanity.
- 1.6 Highway transport, with the flexibility to adapt to multiple scales and varied demands, will allow the implementation of regional economic activity, and connect thousands of small producers and consumers living throughout the territory. It will also help establish an efficient market. In order to achieve this, the backbone is

needed: a highway that is in good repair all along the Corridor, that can be used year round, and that offers a level of service that meets the needs of the projected volume of traffic.

- 1.7 The Bolivian government (GdB) has solicited Bank support to partially finance works to improve the Santa Cruz – Puerto Suárez Highway(BO-0036), and that includes the improvement/installation of 570 kilometers of road between Pailón (Paraíso) and Puerto Suárez, connecting to road sections that have already been paved at both ends, and the posterior operation and maintenance of the highway under concession. In support, the Bank has financed a Feasibility Study for the entire Corridor, the final design for the Pailón – San José section (210 kilometers), and an Environmental Impact Assessment (EIA), contracted by the SNC.
- 1.8 The Bolivian government (GdB) has decided to build the highway project by sections, pave integrally and assure permanent transit through the construction period. Direct building costs are around US\$ 331 million dollars, and will be financed by the IDB, European Union, CAF and others. Given the lack of concessional resources to finance the construction of the highway in just one phase, the BO-0036 operation will be structured in two phases, with a Bank loan of US\$ 70 million for each one.
- 1.9 The execution of Project BO-0033 will be carried out in very close collaboration with the execution of BO-0036. The implementation of BO-0036 will be linked to compliance with benchmarks for Project BO-0033. In addition, the Project Report for BO-0036 will contain triggers of actions of BO-0033 (see attached Logical Framework) that need to be met in order for the Bank to begin considering the second phase of the Highway project.
- 1.10 The GdB and the Bank have agreed that measures to mitigate socio-environmental impact will be applied based on uniform criteria along the Corridor's entire extension, no matter what scheme is implemented for building and financing.
- 1.11 The population of the region, especially in municipalities all along the Corridor's route, is demanding that the highway be built. The population knows that without it they will not be able to share in the economic growth of the department of Santa Cruz. This favorable position towards highway construction has been verified, to one degree or another, within all social sectors.
- 1.12 Despite necessity, economic importance, local social support and the prioritization of the national government, the Corridor project has proceeded at a very slow pace over the past decade. In addition to budgetary limitations, the Highway project has been the subject of controversy due to concerns within the national and international communities as regards social and environmental matters. This is why an approach that considers socio-environmental aspects is needed in order to achieve international financial approval for this project.

**B. The Area of Influence of the Santa Cruz – Puerto Suárez Corridor**

- 1.13 The Areas of Influence were defined in terms of the Highway project's impact and the spatial extension of these impacts as they affect socio-environmental

components. Three levels of Areas of Influence were defined in accordance with the amount of territory covered.

- 1.14 The **Area of Intervention** covers work sites, including the Right of Way (DDV), dumps, PRESTAMOS, access roads, work camps, industrial plants and other installations or auxiliary areas that will be utilized during the construction phase. This area is made up of a long and narrow stretch of territory (100 miles km wide and 570 km long), with smaller areas close by.
- 1.15 The **Area of Direct Influence (AID)** covers all areas that are affected or directly influenced by the DDV and by the highway's construction and operation, as well as all other related effects. The physical-biotic environment is contained in an area that is a strip several kilometers long, running along each side of the DDV. In terms of socioeconomic aspects, the entire municipal territory is included as the corridor<sup>2</sup> passes through six municipalities, covering a surface of 65.180 km<sup>2</sup>, with a population of 86,500.
- 1.16 The **Area of Indirect Influence (AII)** is made up of all of the areas that are indirectly affected due to new accessibility and development resulting from the improved highway, and synergy with other projects. The AII covers a very large extension of land that includes much of the Santa Cruz department because it includes the following: existing or proposed protected areas, the continuity of some extensive ecosystems (the Chaqueño Forest, Chiquitano Forest, Bañados de Otuquis, Pantanal), indigenous communities, and the spatial expansion of projects that have potential synergy with the highway, particularly the natural gas pipeline to Cuiabá, the waterway and the Santa Cruz – San Matías – Cuiabá road. A study area has been defined covering nearly 226.000 km<sup>2</sup> (2/3 of which belong to the department of Santa Cruz and 1/5 is national territory), that covers 15 municipalities (some partially) and a total population of 240,000. A large part of this study area includes the area exposed to the most significant impacts, and that is the target of this Project's actions (see Map).

### C. Land Tenure Situation in the AII

- 1.17 The current land tenure situation is mainly the result of a titling process that took place during the agrarian reform from 1953 to 1993. During this period there was a proliferation of titles and great inconsistency in the titling process, affecting nearly 35% of the lands in Santa Cruz. This is the principal reason why many lots do not have clearly defined property rights. Titles given out during this period did not contain an adequate physical description and so today it is difficult to know the exact size and geographic position of the lot. At the same time these titles were not backed up legally because they were not registered in the country's general property registry, resulting in multiple titling problems for the same lot. As a result of these problems, nearly 40% of the lots are tied up in legal disputes.
- 1.18 As in the rest of the country, legally-acquired private lands in Santa Cruz also suffer from great insecurity as regards property rights. It is estimated that

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<sup>2</sup> Pailón, San José de Chiquitos, Roboré, El Carmen Rivero Torres, Puerto Suárez and Puerto Quijarro.

approximately 70% of urban lots and 10% of rural lots have registered property titles. Legal insecurity is caused both by the current rudimentary registration system in the Register of Real Rights (DDRR), that makes it difficult to track the historic sequence of property transactions, as well as the lack of an adequate land census (cadaster) in the country, which means there is no complete graphic archive of lots.

- 1.19 In Bolivia, historically the property rights of indigenous peoples and rights to communal lands have been ignored. Lands grants for indigenous communities have not been backed up legally, with the result that many lots have been sub-divided and sold informally. In the case of protected wilderness areas and forestry concessions, the state has awarded lands to individuals in these areas despite laws prohibiting the titling of these lands. All of these cases have worsened the problem of land tenure throughout the country.
- 1.20 In 1996, the GdB began reforming the legal and institutional framework in order to bring transparency to land management and administration throughout the country. With the approval of the Law of National Service of the Agrarian Reform (Law 1715), the INRA was created as the only entity in the country in charge of land administration, and new procedures were introduced with the creation of an Agrarian Court in order to improve the judicial system. An Agrarian Superintendence was also created to control and regulate land use and management.
- 1.21 This new legal framework provides the foundation to normalize and consolidate agrarian property rights, and will allow owners to obtain registered titles that are geographically referenced. The procedure utilized for titling will help resolve current conflicts over possession, help obtain legal titles for legal possession, will annul bad titles, provide recognition for property rights, provide a legal register of real estate and registry of agrarian property in the Registry of Real Rights (DDRR). At the same time, the legal framework will allow the establishment and titling of Lands of Indigenous Origin (TCOs), that will be carried out in areas where indigenous peoples live. The government began this process during the last five years in order to insure full property rights to occupants. This process is affecting nearly 2.2 million of a total 37 million hectares in Santa Cruz, with the integration into the real estate registry (cadaster). The World Bank is funding these tasks through the National Program for Land Administration (PNAT) of 1995, and through the Nordic Development Fund<sup>3</sup>. A technical evaluation of partial results shows that processing time for applications was reduced from 12 to 3.5 years with a direct cost per unit of US\$ 3.8/hectares or US\$ 743/lot. The conclusion of this evaluation was that this modality is the most appropriate in order to clarify property rights and guarantee land security in the long term. INRA has been

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<sup>3</sup> In September 2001, the World Bank approved a supplementary credit of US\$ 7.5 million for the PNAT. The goal is to continue strengthening the system's transparency and efficiency as regards land administration. This credit will be used to finance: (i) titling of 3 million hectares in La Paz and Santa Cruz (Ichilo province), including TCO titling in the departments of La Paz and Potosí; (ii) support for new settlements; (iii) improving access to the registry in rural and urban areas through connecting all departmental and rural regional offices to the DDRR's automated system; (iv) technical assistance and training to prepare and consolidate the legal and institutional framework for land administration; and (v) strengthening INRA.

making adjustments to titling procedures in order to reduce costs per unit even more as well as processing time, based on the experience with the execution of these contracts.

- 1.22 In the case of TCOs, since 2000, INRA has been handling over 8.5 million hectares of the TCO belonging to 11 communities in the department of Santa Cruz, with the support of the Development Program for Indigenous Peoples (PDPI) and Danish bilateral support. Two additional TCOs have been identified, one of these with a preventive immobilization in the same area.
- 1.23 At the same time the government has begun modernizing the property registry system in order to remedy the situation of legal insecurity of registered titles. With PNAT resources, over 73,000 registration forms in the country (34,600 in Santa Cruz) have been entered into a computer. At the same time, work has begun to link the DDRR's information registry system with the INRA's cadastral information system in four departmental offices in order to comprise the country's legal register of real estate. As a result of these activities, the registry system is already more efficient and users can now register titles and transactions almost instantly. This has also cut down on corruption.
- 1.24 The government has begun carrying out activities that in turn produce the needed inputs in order to complete the titling process. With operational resources from the Institutional Strengthening component of the Ministry of Sustainable Development and Planning (MDSP) (929/SF-BO), the following activities are being financed: (i) the production of basic maps and densification of the geodesic system and (ii) the definition, identification and establishment of perimeters of the urban zone of the six municipalities within the AID. A diagnostic study of land tenure in the protected areas of San Matías and Otuquis is also being carried out with financial support from the World Wildlife Fund (WWF). This project will permit preliminary zonification in order to identify problems with property lines between the titling areas and forestry concessions, and areas of human intervention.

#### **D. Environmental Studies Completed**

- 1.25 Several environmental studies of varying depth have been carried out during the preparatory phase of the Highway project and the current Project: (i) a first EIA, carried out jointly with road engineering studies; (ii) a Strategic Environmental Assessment and the revision/supplementing of the previous EIA; (iii) a special study on the Regulatory System for Land Tenure; (iv) an Operations Plan for the present Project; (v) the participation of a high level Advisory Panel; and (vi) a new EIA based on the highway's final design and presented by a private consortium.
- 1.26 The **Strategic Environmental Assessment** (EAE) includes: (i) an environmental diagnostic study that covers diverse areas of influence within the project; (ii) a broad process of public consultation and interaction with the national government and diverse social sectors; (iii) the analysis of the Project's impact, both the direct effects of the highway's construction and operation as well as all indirect, synergic, cumulative and long term consequences that result from the Corridor's development in interaction with other projects; (iv) the construction and evaluation

of long-term scenarios that help to visualize the future of the region given different hypotheses for action; (v) the design measures to prevent, mitigate and compensate for consequences; (vi) the organization of these measures in a series of programs that enable planning; and (vii) the design of a participatory system of institutional program management. As a result of the EAE/EIA, a broad-reaching Action Plan was formulated to serve as a guide for future actions in terms of territorial and socio-environmental management.

- 1.27 When considering budgetary restrictions, the national government and bank agreed to limit the Project's scope to a series of priority measures, all considered as absolutely critical to insure the Highway project's feasibility and within the country's financial capacity. These measures were implemented through the elaboration of a **Project Operations Plan**, and this facilitated: (i) the establishment of priorities and adjusting the Action Plan to financial restrictions; (ii) detailed coordination of programs with future executing entities; and (iii) readjusting programs and establishing a detailed operative plan for implementation. (§2.3)
- 1.28 The Bank hire the International Union for the Conservation of Nature (IUCN), with the goal of securing independent advice for both the Bank and Bolivian government as regards strategies, priorities and opportune actions to insure environmentally and socially sustainable implementation of the Highway project. This will be provided by a high level Advisory Panel made up of four international experts and coordinated by the Director of the Office of the Ombudsman's International Center for the Environment and Development (a joint initiative with the Land Council and the IUCN), and by the IUCN's Regional Director Regional for Latin America. Panel activities include: (i) revision of all studies; (ii) field visits, dialogue with affected communities and officials; and (iii) a Final Report with recommendations on priorities and strategies for Project implementation. The Panel validated the EAE's conclusions and indicated priority actions thus far in the Operations Plan, and also made recommendations on how to strengthen initiatives to support sustainable development at the municipal level.
- 1.29 The Bank hired a consultant on Normalization of Land Tenure who prepared the following: (i) an exhaustive diagnostic study of the legal framework and procedures; (ii) short-term recommendations on how to perfect the system and make adjustments before beginning the titling process; and (iii) a detailed version of the Titling and Land Registry Program.
- 1.30 During the first semester of 2001, the CVI Consortium prepared a new EIA for the Highway project on the basis of the engineering for the final design for the highway's entire extension. This was part of a private sector initiative to build the road as a concession.

#### **E. Results of the Strategic Environmental Assessment (EAE)**

- 1.31 The EAE showed that concerns over the environmental and social impact of the highway were fully justified. The area of influence includes an enormous forest mass, still relatively untouched, and with very valuable ecosystems such as the Chiquitano Dry Forest, the Chaqueño Forest, Sabanas Arboladas (closed) and the Pantanal. In addition, outside the large area of good land within the Area of



Expansion<sup>4</sup>, agricultural use is limited in the rest of the territory with high environmental vulnerability.

- 1.32 EAE results portray a fragile environmental and social situation in the area of influence of the Santa Cruz – Puerto Suárez Corridor. In **environmental terms**, the EAE points out that global experience in the past decades with the building or improvement of highways in isolated regions and with natural vegetation has had grave consequences: greater accessibility throughout the year and the reduction of transport costs causes a rapid expansion of the economic frontier (agriculture, extensive cattle-ranching and logging), which in turn results in massive deforestation, degradation of ecosystems and a loss of biodiversity.
- 1.33 In recent years, significant strides have been made to designate large territorial extensions as protected areas: (i) the National Park (PN) and the National Area of Integrated Management (ANMI) Kaa-Iya of the Gran Chaco, with 3.4 million hectares; (ii) the National Park (PN) and ANMI Pantanal of Otuquis, with 1 million hectares; and (iii) the San Matías ANMI, with 2.9 million hectares. These areas contain valuable ecosystems of global importance.
- 1.34 Thus far advances in implementation of management mechanisms have only been made in Kaa-Iya, under the administration of the organization of the Guaraní People- Capitanía del Alto and Bajo Izozog (CABI). This have been achieved with the support of the Wildlife Conservation Society (WCS), the Agency for International Development of the United States (USAID) and resources for compensation from the Bolivia-Brazil Natural Gas Pipeline Project which was partially financed by the Bank. Administration in San Matías is incipient and there are still almost no administrative mechanisms in Otuquis. The Global Environment Facility Project (GEF-II), a World Bank initiative begun in January 2001, will support the implementation of basic management structure in these two areas, but with an insufficient number of park-guards and resources in order to effectively protect areas of this size. There is still the concrete risk that the improvement of accessibility will cause an irreversible occupation, and the fragmentation and degradation of these ecosystems.
- 1.35 In **social terms**, the EAE also describes the region's poverty and ethnic and social diversity: the majority of the population living in urbanized areas are poor, the indigenous peoples (Chiquitanos, Ayoreos and Izoceño-Guaraní), small farmers and landholders that have come from other regions, the Mennonites, small landholders, day laborers, as well as large farms and cattle ranches. The lack of legal security as regards land tenure compounded by the severe poverty, particularly in rural areas, are the central factors contributing to vulnerability.
- 1.36 The development that the highway will bring is going to cause conflict between modern production systems linked to global markets and traditional systems of subsistence agriculture. The rise in land value and the "permeability" of the Chiquitanas communities and small farmers who will join the population attracted

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<sup>4</sup> The rapid conversion of forests into agricultural areas was caused by a zone approximately 100 km to the east of the Grande River, where the Lowlands Project was financed by the World Bank.

by the project, will exacerbate existing social differentiation and private appropriation of communal lands. Up until now, the relative isolation of the region has somewhat ameliorated these factors, but this will change when the highway is improved. The difficult access helped to keep down pressure on the land and minimized the impact on ecosystems and the most vulnerable population. The new greater accessibility will increase land value and will extend the economic frontier, as well as exacerbate conflicts and the impact on society and the environment.

- 1.37 As regards the direct impact of construction of the road corridor and obtaining the Right of Way, which will be 100 m wide along the entire Pailón – Puerto Suárez section (570 km), this will require the purchase or expropriation of nearly 5,150 hectares. This will affect 17 indigenous communities, 7 farming communities, 3 cooperatives, 2 Mennonite colonies, 2 public institutions and nearly 440 individual properties. Since the highway crosses the area of greatest human occupation, the affected universe is significant within a regional context. The portion of property affected is proportionally small in the majority of cases, although there are some lots occupied by vulnerable groups that will be seriously affected. The total number affected is: 67 rural homes (the majority very precarious), power lines, lands prepared for cultivation, 2 cemeteries, 2 commercial installations, and an important number of fruit trees and minor installations.
- 1.38 Other relevant socioeconomic consequences that will require mitigation include: (i) the segmenting of territory and interference with productive activity; (ii) the physical destruction of some communities; (iii) the risk of accidents and social problems derived from living alongside operations and workers; (iv) loss of an advantageous position for some communities engaged in important commercial activity; (v) the reorientation of growth for some communities; (vi) the reorientation of labor on the part of some representatives selected by each of the indigenous communities; (vii) tension and conflict in communities resulting from economic pressure, migration and cultural changes; (viii) the risk of accidents with the frequent crossing of people and livestock.
- 1.39 In **institutional terms** the EAE's description presents an ambiguous picture. On the one hand the country has a somewhat advanced legal framework, the fruit of recent reform efforts: the Law of the Environment, the INRA law, the Forestry Law, the Law of Popular Participation, and its respective regulations; as well as the zonification of the Santa Cruz Plan for Land Use and the General Regulations for Protected Areas. The country has also progressed in terms of creating institutions charged with the implementation of these laws and their management. However, institutional capacity to actually carry out these tasks is pretty weak in general, and institutional presence in the countryside is limited.
- 1.40 The evaluation of the **legal framework** and structure of these bodies showed that the principal legal instruments needed for social and environmental management of the described processes and risks does exist, at least in theory. There are very few cases where new laws are needed or where existing laws need to be modified (Law of Conservation of Biological Diversity). However, there are numerous and essential cases where regulations need to be perfected and legal dispositions need to be implemented. The most fundamental problem, however, is that given

institutional limitations, the state generally is not capable of effectively enforcing the laws and supervising and guiding the development process.

- 1.41 As regards **social conscience**, in general the population does not comprehend the magnitude of future change and risks entailed. This is true among certain leadership sectors, that only focus on the benefits of economic development and do not consider the consequences, as well as in the communities themselves, where people are concentrating on concrete and immediate problems, and ways to provide relief for their current severe lack of basic services. Small farmers and Indigenous Bolivians are also vigorously demanding titles for their land and support for their productive activities. There is a high level of grassroots organization even though capacity for action is weak, and the population is demanding the right to participate.
- 1.42 This is a brief synthesis of the situation and possible future scenarios that the highway's construction will bring if additional actions are not taken to mitigate direct impacts (the Law stipulates that the legal party responsible for the Highway project must consider this). This is the context within which the EAE has developed the programs that are part of the Project for Environmental and Social Protection being analyzed.

#### **F. Public Consultations and Outreach**

- 1.43 The Strategic Environmental Assessment (EAE) of the Santa Cruz – Puerto Suárez Corridor was carried out using participatory methodology, involving authorities, organizations and inhabitants of the highway's area of influence. The principal mechanisms for participation are described below.
- 1.44 At the beginning of the study, the goal of the **first round of public consultation** was to identify public perceptions with respect to the following a: (i) the Highway project and possible impacts on the environment and quality of life; and (ii) the principal socio-environmental problems affecting the population, their causes and possible solutions. The results of the first round were extremely useful in order to elaborate the Project's Diagnostic Study and Conceptual Design. Thirteen workshops were held (7 in municipalities and 6 in indigenous communities); with the participation of 450 people, authorities and representatives from 106 communities.
- 1.45 The "First Draft of the Action Plan" was the topic of discussion during the **second round of the public consultation**, and the results greatly helped in adjusting program proposals<sup>5</sup>. The Second Round involved 11 workshops over a two-day period (6 in municipalities and 5 with indigenous communities). Approximately 500 people participated. All of the indigenous communities sent representatives to the workshops with this group.

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<sup>5</sup> Over a month earlier, this document was distributed to all public and private institutions, NGOs and indigenous organizations in the municipalities and all of the rural communities of the six municipalities within the AID.

- 1.46 **The Participation and Consultation Committee<sup>6</sup> (CPC) held monthly meetings** throughout the entire process. The CPC did continual follow-up of the study, and provided criticism and concrete suggestions in order to adjust proposals and influence the Consulting firm's work.
- 1.47 **Technicians from the consulting firm and government and NGO representatives held workshops to discuss specific themes** such as protected areas and environmental conservation, land titling and registry, and indigenous programs.
- 1.48 In November 1999, the national government, IDB and NGOs agreed to promote a Third Round of Consultation, after finishing studies. The goal was to discuss the final version of the Action Plan with the population. This third round was successful and took place between October and December, 2000.
- 1.49 The Third Round of Consultation permitted all communities within the area of influence to participate in the discussion of the Highway Project and proposals for the Socio-Environmental Action Plan. Special efforts were made to involve small villages of farmers and indigenous Bolivians, as well as the poor living in peripheral urban areas. **Over 8,200 people participated in 216 Communal Assemblies**, which represents 17% of the adult population in the area where the consultation process was carried out<sup>7</sup>.
- 1.50 Indigenous groups were specifically consulted while carrying out the three rounds of public consultation, in accordance with Agreement 169 of the International Labor Organization (ILO), ratified by Bolivia through Law 1257<sup>8</sup>.

#### **G. Project Conceptualization and Design (PPAS)**

- 1.51 The Project for the Environmental and Social Protection of the Santa Cruz – Puerto Suárez Corridor (PPAS – the Project) meets the needs expressed in the conclusions of the EAE studies, particularly as regards the need to implement a series of environmental protection measures and measures to insure regional sustainable development that will: (i) assure that works to improve the Santa Cruz – Puerto Suárez Corridor are carried out within the framework of a process of

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<sup>6</sup>The Bolivian government created a Participation and Consultation Committee (CPC) at the Bank's recommendation, in order to assure the participation of affected communities and transparency in the implementation process of socio-environmental protection measures in the Corridor's area of influence. The CPC was created as a permanent forum of participation for the principal entities representing local governments, NGOs and civic organizations, in order to involve them in all matters related to the socio-environmental aspects of the Santa Cruz – Puerto Suárez Corridor Project.

<sup>7</sup> A Public Education poster written in the daily language of indigenous and municipal promoters was during the consultation. A group of 60 communal representatives who had been trained previously, carried out the consultation process with the communities, and directed discussion of the Highway project and Action. All proposals made during communal assemblies were consolidated by municipality and by indigenous organizational zone, and then these were discussed during 11 Zonal Workshops and later in the Final Workshop.

<sup>8</sup> The entire organization, execution and follow-up process of the Consultation was coordinated with the major indigenous organizations, Confederation of the Indigenous Peoples of Bolivia (CIDOB) and the Coordination of the Ethnic Peoples of Santa Cruz (CPESC), and with all ethnic and regional organizations involved. The communities were classified according to the way they identify themselves ethnically, and representatives (facilitators) from these communities directed their respective communal assemblies.

regional occupation that is planned and controlled and that does not pose risks to socioeconomic relations and natural ecosystems; (ii) assures that benefits of agricultural development and forestry that result from the road works will benefit all inhabitants of the area of influence as well as minimize any negative impacts on biodiversity and environmentally fragile zones, and that rights acquired by indigenous and small-farming communities are respected by carrying out a broad program to register provide titles for land; (iii) contribute to socioeconomic development in the zone of influence of the Santa Cruz-Puerto Suárez Corridor, optimizing the use of natural resources.

- 1.52 All of the above requires that: (i) the prevention and compensation programs that are high priorities in the EAE (concession of property titles for land, protection of vulnerable zones, etc.) should be in place before the works begin; (ii) the Bank's future loan to improve the highway include conditions that link disbursements to progress in the mitigation of the project's environmental impact.
- 1.53 While considering that the indirect socioeconomic and environmental consequences within the highway's area of influence are long term and will extend beyond the building phase, some mitigation programs must be continued in order to achieve balanced development in the area of influence. These programs will require a period of execution that is longer than normal where Bank loans are concerned. In order to meet this need, institutional and financial mechanisms need to be set up to make it feasible to continue mitigation activities in the medium term, in accordance with considerations presented below.
- 1.54 The following PPAS' subprograms will have a longer execution phase than the first building phase (estimated at 10 years): (a) **Subprogram for Indigenous Organizational Development:** requires strengthening indigenous coalitions so that they can defend the interests of indigenous peoples and participate in the development process of the zone; (b) **Subprogram of Management of Protected Areas:** the National Service of Protected Areas (SERNAP) needs to be equipped with the resources and sufficient personnel in order to counteract additional pressure on the land that is caused by the highway, particularly once the highway is operational; and (c) **Subprogram for Forest Conservation:** the Forestry Superintendence (SIF) needs to be provided with the resources to counteract additional pressure on the land that the highway will bring to forested areas within the AII, particularly once the highway is operational.
- 1.55 Current financial conditions in Bolivia mean that the country does not have enough financial resources (neither loans, nor counterpart) to cover the total costs of mitigation programs. This is why it is necessary to design creative financial mechanisms in order to generate sufficient resources to cover these costs and insure sustainability of investments.
- 1.56 Given the timeframe for Project execution and that fact that resources from an eventual loan must be applied within this same timeframe, it was necessary to analyze alternatives for the establishment of an institutional and financial framework that meets Project needs. As a result of this analysis and given

difficulties confronted in the past in Bolivia when fiduciary funds (FF) were administered directly by government entities, the decision was made to support the institutional framework to execute the project by setting up three fiduciary fund funds with reputable organizations from the civil society. These organizations should assure technical capacity and transparency in the channeling of resources.

- 1.57 In addition to the transparency and technical capacity mentioned above, the decision to propose setting up these funds was also based on the following considerations: (i) the need for a mechanism to administer funds independently that will contribute to eliminating political interference in the execution of subprograms; (ii) in order to avoid Bolivian legislation which requires that government funds be deposited in the national currency, with the high risk that these funds lose their dollar value because of periodic devaluations of the Bolivian peso; (iii) so that commitments will be complied with after negotiations with representatives of indigenous organizations, the government, NGOs, and other interested entities; (iv) in order to fulfill the specific petition of indigenous communities that they be able to manage resources through entities that represent their interests.
- 1.58 The following entities have been chosen to manage funds: the Indigenous Fund<sup>9</sup>, a public international body, and two private foundations, FUNDESNAP<sup>10</sup> and PUMA<sup>11</sup>, all of which receive fiduciary funds to utilize for activities that are contemplated within international accords. The fiduciary funds given to these administrative entities will generate funds needed to cover funding gaps for Project expenses<sup>12</sup>.

## **H. How the Project fits into Bank Strategy**

- 1.59 The Project's design fits within Bank strategy in Bolivia as this strategy is centered around combating poverty, with three principal guidelines for action: (i) economic growth and creation of opportunities, within which this project fits; (ii)

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<sup>9</sup>The Fund for the Development of the Indigenous Peoples of Latin America and the Caribbean. Indigenous Fund, is a multilateral development organization that was created in 1992 through an agreement signed by 23 countries and ratified by 20 of them as of this date. The IDB handles the financial administration of resources of the Indigenous Fund as a fiduciary fund, and participates in the General Assembly as an observer.

<sup>10</sup>The Foundation for the Development of the National Protected Areas System (FUNDESNAP) is a private non-profit foundation that has public and private management. It was created with World Bank and international support in order to channel foreign aid to protected areas. Its goals include attracting resources to invest in operations and projects in protected areas, and to administer its own resources and resources of third parties (it can set up fiduciary funds). Foundation resources are channeled to finance SERNAP and other entities in order to benefit the National System of Protected Areas. FUNDESNAP is in charge of administering the Fiduciary fund funds established by the GEF-II program (GEF resources channeled through the International Development Association), dedicated to financing recurring costs of management of protected areas.

<sup>11</sup>The Foundation for the Protection and Sustainable Use of the Environment (PUMA) is a private entity with joint public-private management, and that administers USAID funds to support environmental programs in Bolivia.

<sup>12</sup>In order to carry out the three subprograms mentioned over a ten-year period through fiduciary funds, the Project should adopt special mechanisms as regards disbursements, utilization of interests derived from resources placed in the fiduciary funds, execution period of the subprograms, and duration of the funds as described in Chapter I.

development of human capital and access to basic social services; and (iii) governability and consolidation of reforms.

- 1.60 The operation also fits into the Bolivian Strategy to Reduce Poverty (EBRP), approved in June 2001 by the board of the World Bank, International Monetary Fund and IDB. By focusing on environmental protection, this Project makes the Environmental Management component in the EBRP a central theme. Finally, Bolivia's investment program for 2002 is principally based on the provision of concessional resources in keeping with political agreements reached with the IMF in December 2001. In this sense, non-concessional financing cannot exceed .8% of the GDP for this year.
- 1.61 The proposed actions are directed towards both economic growth and the creation of opportunities that are sustainable, particularly as regards small producers and environmental protection, as well as the promotion of greater social equity. At the same time, management mechanisms will help to consolidate reforms through decentralization. The Highway project and the Project for Environmental and Social Protection will complement government strategy in optimizing the use of natural resources, creating basic infrastructure to further national integration, and to improve Bolivia's physical linkage to international markets.

#### **I. Bank Experience with Highway projects in Bolivia and Lessons Learned**

- 1.62 Bank action in the transport sector in Bolivia has been characterized by a lack of portfolio diversification, and by few loans of great magnitude concentrated in the road subsector. Building costs for projects financed have gone way over budget and the projects have extended beyond their original timeframe. In addition to problems due to incomplete engineering design and deficiencies in the technical supervision of works, the following factors have also aggravated these problems: the lack of consideration of environmental problems in an opportune manner and a limited scope.
- 1.63 Lessons learned include: (a) the need to consider indirect and long-term socio-environmental impacts that in general are more significant and important than direct impacts, and include mitigating actions in the Project (or achieve through concurring initiatives); (b) the need to adopt measures that will help to minimize these impacts before building is begun, such as for example: (i) the clarification of property rights in the Right of Way zone before the expropriation process is initiated; (ii) aid to affected populations, particularly small farmers and indigenous communities throughout the entire expropriation process in order to assure a just response to their demands.
- 1.64 A lesson learned from other international agencies is the negative experience with fiduciary funds managed by governmental entities (the case of the National Fund for the Environment FONAMA in the 1990s). This led the international community to promote the creation of private foundations to channel resources for environmental projects. FUNDESNA and PUMA came out of these new initiatives that have more credibility because of World Bank and USAID support

and supervision. These entities are currently functioning normally and are successful.

- 1.65 The implementation of environmental compensation measures with the Bolivia-Brazil natural gas pipeline project is yet another lesson learned. This was partially financed by the Bank, and functioned with a management and environmental system similar to the one recommended for the current project.



## II. THE PROJECT

### A. Project Objectives

- 2.1 The Project's general objective is to minimize, control, counteract and compensate for direct, indirect, cumulative, long-term and synergic socio-environmental impacts that are caused by the implementation and operation of the Santa Cruz – Puerto Suárez Corridor. This general objective includes the promotion of environmental conservation, and sustainable economic and social development in the area of influence in accordance with Bolivian law and Bank standards.
- 2.2 Priority actions to prevent, control and compensate for socio-environmental impacts should be implemented before building begins, and will be partially financed by the Bank.

### B. General Description of the Project

- 2.3 The Project includes the following components:
  - a. The Action Plan, with the goal of preventing, controlling, mitigating and compensating for indirect, cumulative and long-term impacts caused by development spurred by the Corridor project, as well as to promote a more equitable distribution of the project's benefits. The Action Plan includes the following programs: (i) Titling and Registry of Lands; (ii) Indigenous; (iii) Environmental Conservation; (iv) Institutional Strengthening and Sustainable Municipal Development; and (v) Communications.
  - b. The Prevention and Mitigation Plan and Environmental Applications and Monitoring Plan (PASA), which the entity responsible for the Highway project (National Highway Service, SNC) must comply with as stipulated by Bolivian legislation to control, mitigate and compensate for indirect impacts of the highway's construction and operation. The PPM-PASA includes the following programs and activities: (i) Compensation for Losses; (ii) Protection of Archeological and Cultural Heritage; (iii) Information and Social Interaction; (iv) Mitigation of Impacts in Construction Operations; (v) Environmental Supervision of Construction (the responsibility of the SNC); and (vi) Environmental Auditing (the Environmental Authority's responsibility).
  - c. A Socio-Environmental Management System Project, designed to coordinate and supervise program actions.
- 2.4 The Project will finance: (i) all programs within the Plan of Action; and (ii) PPM-PASA programs related to the first work phase of the highway (§1.8) which should conclude by 2006; (iii) a Socio-Environmental Management System for the first phase during which the UEP will be working with a full staff. At the same time the Project will finance the Project Executing Unit (UEP) with a reduced staff and independent financial and technical-environmental auditing, between 2007 until the first trimester of 2012 (§3.12). PPM-PASA actions related to the second phase will be financed by the second phase of the Project BO-0036. During the final

construction phase (projected for 2007-2008), the environmental component of the Highway project with the implementation of the Action Plan will not differ from a typical highway project which does not require a specific loan operation nor a special management system.

- 2.5 The Project for Environmental and Social Protection in the Corridor's area of influence includes a series of programs that are related, and will transform general strategies to promote sustainable development into concrete actions.

**C. Description of the Programs within Action Plans (US\$ 15,378,700)**

**1. Program for Titling and Registry of Land (US\$ 5,100,000)**

- 2.6 The program for the Titling and Registry of Land will finance the titling and registry of approximately 8,800 rural lots in an area of 7.2 million hectares, and will support this same number of families in six municipalities within the highway's AID (Pailón, San José de Chiquitos, Roboré, Carmen Rivero de Torres, Puerto Suárez and Puerto Quijarro). This activity will also include titling and registry in the San Matías and Otuquis protected areas. Through this program, the national INRA office will also be financed as well as INRA and DDRR departmental offices in Santa Cruz, with a highly qualified team of professionals responsible for technical supervision, contract administration and work related to these activities.

- 2.7 In order to improve the situation of rural property as regards legal insecurity, the program will consolidate the geographic information systems of INRA and DDRR in the department of Santa Cruz. In order to accomplish this, the program will finance the purchase of equipment and software to (i) consolidate and utilize the digital basis of graphic cadastral information and alphanumeric information (SIG/CAT) received during the titling and registry process in the local INRA offices in Santa Cruz, Roboré, and San José de Chiquitos; and (ii) the modernization of the DDRR office in Santa Cruz and implementation of system to register lots in the TEMIS registry in two local offices (Roboré and San José de Chiquitos). Both the SIG/CAT as well as the TEMIS system will be linked through Internet technology.

- 2.8 The program will finance training courses to improve INRA's procedures. At the same time, DDRR officials will be trained in registration techniques for registration personnel, the TEMIS group and computer training.

**2. Indigenous Program (US\$ 3,156,000)**

- 2.9 **The Indigenous Program (PI)** includes three subprograms: (i) Organizational Development; (ii) TCO Management Plans; and (iii) Production Initiatives, managed by a Technical Management Unit with the principal goal of supporting organizational strengthening of indigenous peoples, environmental management and sustainable use of their territories.

- 2.10 The Organizational Development subprogram (US\$ 2,295,400) will support organizational strengthening of nine indigenous coalitions in the highway's area of

influence during the 10 years of the project (until the end of 2011): Organización Indígena Chiquitana (OICH), Central de Comunidades Indígenas de Chiquitos – Turubo (CCICH-T), Asociación Comunitaria (CICOL), Central Indígena Reivindicativa de la Provincia Ángel Sandoval (CIRPAS), Central Ayoreo Nativo del Oriente Boliviano (CANOB) and Capitanía del Alto y Bajo Izozog (CABI), as well as the indigenous organizations Central Indígena Chiquitana de Pailón (CICHIPA), Central Indígena Chiquitana Amanecer Roboré (CICHAR); Central Indígena Chiquitana de la Provincia Germán Busch (CICHGB). In order to permit this activity in the medium term, the Project will promote the creation of a Fiduciary Fund administered by the Fund for the Development of the Indigenous Peoples of Latin America and the Caribbean (IF) in a local banking institution. The IF, an international public body created with Bank support, will be the Fideicommissor. The Executing Agency will transfer resources to this fund through the FI with an initial capital contribution of US\$ 1.6 million of loan resources. The FF's resources will finance organizing tasks; office expenses and operational costs; consultation meetings with communities; the promotion of activities on the part of women's organizations; training and formation of human resources; as well as follow-up of socio-environmental impacts caused by highway construction while following clear criteria for eligibility. It is estimated that the support for each indigenous coalition will depend on the profitability margin of the funds probably reaching in average around US\$ 2,150 a month, to support typical organizational development activities. In the last two years the subprogram will promote the gradual substitution of this funding source with contributions from the communities themselves. This financing will come from funds that they are able to generate in accordance with the Operations Plan previously agreed upon with the Bank.

- 2.11 During the first year the subprogram will also finance (i) office equipment for the three indigenous coalitions (CICHIPA, CICHAR and CICHGB) with vehicles, computers and radiocommunications systems with the communities, organizations that could not acquire this operational infrastructure through the programs for Indigenous Development Plan (PDI) and the Program for the Development of Indigenous Peoples (PDPI) of the natural gas pipelines; and (ii) training for representatives selected by each of the indigenous communities as regards technical and legal matters in order to support the TCO's titling process, and lands belonging to indigenous communities. In 2005, the Project will finance vehicle renovation and renovation of computers and radios for the other 6 coalitions. The subprogram's expenses for 2002 and 2003 and renovation of equipment in 2005 will be financed through the Bank's usual disbursement mechanisms, while projected expenses for 2004 through 2011 will come from interest earned by the Fiduciary Funds and part of the same capital, in accordance with rules established in the POA's prepared on the basis of the Project Operations Plan, and that was previously agreed upon with the Bank.
- 2.12 The TCO Management Plans subprogram (US\$ 205,900) will finance consultants, technical experts, indigenous promoters and underwrite operations costs for the participatory elaboration of plans for the TCOs that are set up within the AII. This constitutes a strategic aspect of environmental conservation in the region given the

significant territorial extension of the TCOs, and their possible role as part of a network of biological corridors.

- 2.13 The Production Initiatives subprogram (US\$ 300,000) will finance consultancies, workshops and operations costs for: training indigenous technicians and representatives selected by each of the indigenous communities to elaborate and administer productive projects; support and advice on how to attract resources, obtain micro-credits and carry out projects; and support for pilot programs for productive development in indigenous communities. The subprogram will be carried out in an integral manner along with the Showcase Projects subprogram (see ¶2.26).
- 2.14 During a four year period, the Indigenous Program will finance the work of the Technical Unit for Management of the Indigenous Program in Santa Cruz de la Sierra (US\$ 354,700), and will cover: (i) a small office for technical and administrative support of the PI, a secretary, an accounting assistant, and a driver, all paid with Project resources; (ii) a budget for consultants and operational costs; (iii) meetings with the Commission for Monitoring and Operative Coordination (COSECO). This measure is needed to provide training to leaders of organizations and establish conditions so that they can later administrate FF resources efficiently.

### **3. Environmental Conservation Program (US\$ 4,319,500)**

- 2.15 The Environmental Conservation Program has the following objectives (i) strengthen management of protected areas within the area of influence, protecting them from the pressure of occupation produced by improving access; (ii) assure the recomposition of biological corridors and ecological reserves traversed by the highway through the restoration of native vegetation; (iii) strengthen regulation and forestry control in order to conserve and promote rational and sustainable use (financial, environmental and social) of large and virtually untouched forested land extensions in the region.; and (iv) coordinate efforts to halt deforestation, fragmentation of forests and the pressure of occupation on areas of high ecological value, in particular the Chiquitano Forest, the Gran Chaco and the Pantanal.
- 2.16 The Environmental Conservation Program has two synergic subprograms: (i) Management of Protected Areas; and (ii) Conservation of Forests.
- 2.17 The Management of Protected Areas Subprogram (US\$ 2,246,400) has the goal of consolidating management of three protected areas that are within the highway's area of influence (San Matías, Otuquis and Kaa-Iya), permitting the gradual improvement of the level of protection activities and park administration (¶1.54).
- 2.18 In order to counteract the land occupation pressures caused by the highway, the program will complement basic protective actions projected within the Program for the Sustainability of the National System for Protected Areas (GEF-II), approved in December 2000 (see Fig. III-3 and ¶1.34). The subprogram will gradually increase funding for the following programs between 2003 and 2006: (i) the hiring of park-guards, which will permit an incremental and gradual increase of park-guards in San Matías and Otuquis. In San Matías, the number will increase from 12 to 30 park-guards and in Otuquis, from 8 to 18. One driver and two technicians

will also be assigned to San Matias and another for Otuquis; (ii) a budget increase for operational costs in the three areas (gasoline, daily expenses, materials, maintenance), in a form consistent with minimal operational needs; (iii) a small amount for investments in San Matias and Otuquis (investments are nearly covered for Program GEF-II). This subprogram will maintain this level of support for the three areas during 2007 and 2008, gradually decreasing the amount between 2009 and 2011. During these last two years, SERNAP will cover these costs with the support of FUNDESNAP, and will become completely responsible for these costs in 2012, in accordance with rules established in the Project Operations Plan agreed upon with the Bank. In order to support these actions in the long term, the Project will promote the creation of an FF in a local banking institution, which will be administered by FUNDESNAP (Fideicommissor) and will transfer initial capital in the amount of US\$ 1,970,000 out of loan funds..

- 2.19 The Subprogram for Forest Conservation (US\$ 2,073,100) was set up with the goal of strengthening forestry regulation and control in the highway's area of influence in order to: (i) control illegal logging; (ii) promote the economically sustainable use of forestry resources; and (iii) contribute to the conservation of forests, preserving conservation of the forests, and preserving both the enormous forestry resources as well as biodiverse resources.
- 2.20 The Subprogram will finance some investments and principally the hiring of technicians and financing operational costs required for the following actions: (i) the strengthening and functioning of three Forest Operative Unit (UOB) in San José, Roboré and Puerto Suárez; (ii) the functioning of the Forestry Control Station in Pailón; (iii) the creation and functioning of two Mobile Forest Brigades; and (iv) the implementation of a Monitoring System for clearing and forest fires, based on satellite images within the Geographical Information System (SIG).
- 2.21 The Subprogram resources will permit the continuity and extension of areas that are subject to regulation and forestry control that the Forestry Superintendence (SIF) has already been carrying out within the area of influence. The subprogram will totally finance these activities between 2002 and 2008 (7 years), and the SIF will gradually absorb these costs over the following three years (2009-2011) in accordance with the Project Operations Plan agreed upon with the Bank. In order to support these actions in the medium term, the Project will promote the creation of an FF (¶1.56) in a local banking institution, administered by the PUMA foundation, and will provide initial capital in the amount of US\$ 1,500,000.

#### **4. Program for Institutional Strengthening and Municipal Sustainable Development (US\$ .668.200)**

- 2.22 **The Program for Institutional Strengthening and Municipal Sustainable Development** seeks to strengthen management capacity for the six municipal governments in the AID at several levels: territorial, urban, cultural and environmental. This will help local governments to act efficiently as regards management of their territory and to face the challenges of new social and

environmental demands resulting from the development that the Corridor will bring. It also includes support for local social organizations and citizen participation, as well as coordination between different social sectors. (¶ 1.35 a 1.39).

- 2.23 This program contains six subprograms: (i) Municipal Territorial Zoning Plans (PLOT) and Training for Environmental-Territorial Management; (ii) Showcase Projects; (iii) Urban Planning; (iv) Urban Register of real estate; (v) Respect for Cultural Heritage; and (vi) a Global Proposal for Regional Development. This program will be carried out in coordination with Loan 1075/SF-BO (Local Development and Fiscal Responsibility), in order to avoid duplication of efforts and so that municipalities can access resources from national funds: National Fund for Regional Development (FNDR) and the Fund for Social and Productive Investment (FPS) based on projects that are technically sound.
- 2.24 The Subprogram for Municipal Territorial Zoning Plans (PLOT) and Training in Environmental-Territorial Management (US\$ 544,450) will finance the hire of a consulting firm to elaborate the PLOT for each one of the six municipalities in the AID. The subprogram will also provide technical assistance and training to municipal governments and social organizations in the six municipalities of the AID, in order to improve territorial and environmental management capacity along with social participation.
- 2.25 The studies will utilize the Santa Cruz Plan for Land Use (PLUS), the EAE and existing maps based on the Land Titling Program (maps from the Geographic Military Institute [IGM] and satellite images SPOT (georeferenced) with loan resources 929/SF-BO. Maps will be produced (interpretation of images) on a digital basis within a SIG, at a scale of 1:50.000. Similar maps will also be produced at scales of 1:10.000 and/or 1:5.000 for lots, in order to facilitate the future elaboration of management plans at the large farm level, in support of showcase projects that will be implemented (¶2.26).
- 2.26 The Subprogram for Showcase Projects (US\$ 1,478,850) will finance the hiring of consulting firms in order to carry out pilot projects that will encourage sustainable productive management. They will also serve as a future reference for development in the area after the highway is built. The pilot projects to be financed include: (a) production projects targeted towards peasant communities and small non-mechanized producers, including native species; (b) projects geared towards small and medium sized livestock ranches; and (c) soil management and fertilizer use projects (for agricultural businesses).
- 2.27 The Subprogram for Urban Planning (US\$ 89,000) will finance consultancies and operational costs for technical assistance to the six municipal governments of the AID, to help them prepare Master Plans for Urban Development in municipal capitals, with an emphasis on environmental issues. This will help these cities absorb population growth and development and commerce resulting from the highway's construction in a more organized manner.
- 2.28 The Urban Register of Real Estate (Cadaster) Subprogram (US\$ 172,000) will finance the hiring of a consulting firm to carry out a pilot registry of real estate

projects and pilot projects for urban titling of lands, in order to clarify the tenure situation of approximately 1,000 lots in each one of the six municipalities of the AID.

- 2.29 The Subprogram for the Respect of Cultural Heritage (US\$ 83,500) will finance consultancies, workshops and operational costs to promote the strengthening of the system of Cultural Centers in each municipality. The subprogram will provide technical and financial support to training initiatives in the field of human resources, dissemination and respect for archeological monuments and historic sites, as a form of preservation and an incentive for cultural tourism.
- 2.30 The Subprogram “Global Proposal for Regional Development” (US\$ 170,400) will finance the hire of a consulting firm to elaborate sustainable development proposals for each social and environmental dimension, including the process to promote respect with representatives of social sectors and institutions. The goal is to recommend a medium and long-range strategy to the national government to bolster continuity and the extension of initiatives in the Action Plan, and to do this in a sustainable way.

#### **5. Communications Program (US\$ 135,000)**

- 2.31 This program brings Project activities to public and international opinion, the scientific community, NGOs, class groups, social organizations, other modes of communication and audiences, or anyone interested in the Highway project and/or this Project. The goal is to guarantee a constant flow of reliable information as regards socio-environmental aspects, and establish permanent channels for dialogue with various social sectors and specialized audiences. The Communications Program will provide financing for specialized consultancies, publications, workshops, Internet services and operational costs. The following instruments will be utilized: (i) a Web page on the Internet; (ii) technical publications; (iii) meetings, debates, workshops for specific audiences; (iv) participation in radio and TV programs; (v) the production of videos and printed material; and (vi) eventual controlled field visits to the worksite. This program's area of coverage includes the total indirect area of influence of the Highway project. Execution will be coordinated with the Information and Social Interaction Program, as part of the PPM, and directed towards the local public (see ¶ 2.37 y 2.38).

#### **D. Description of the Programs of the Prevention and Mitigation Plan (PPM), and the Environmental Applications and Monitoring Plan (PASA) (US\$ 5,084,800)**

- 2.32 With the purpose of standardizing environmental control parameters and criteria to be used during the construction of all of the different sections of the highway corridor, and to make sure the highway is constructed in a sustainable manner, the Government has agreed with the Bank to establish the obligation to comply with all environmental control measures specified in this report and in the Project Operations Plan, independently from the source of financing for construction. As a condition to the first loan disbursement, the Government must provide evidence to

the Bank that official SNC directorates have been issued in regards to establishing environmental standards in compliance with the Program Operations Plan of this Project that must be implemented for all construction work to take place along the corridor. The SNC will adopt the necessary measures to ensure that all bid documents to be distributed to potential construction and engineering supervision contractors for the highway include such a provision.

### **1. Losses Compensation Program (US\$ 2,418,000)**

- 2.33 This program has the following goals: (i) to free up the areas of the Right of Way (DDV) needed to improve/build the highway; (ii) replace and/or adequately compensate for loss of lands, homes and installations affected by the creation of the DDV<sup>13</sup>; (iii) to mitigate and compensate for diverse socioeconomic impacts that the construction, presence and operation of the highway will cause in neighboring communities<sup>14</sup>; and (iv) to assure the socioeconomic rehabilitation of the affected population<sup>15</sup>. The DDV will be freed up and this project will be implemented along the Corridor's entire extension during the first phase of the Highway project. (¶1.37, 1.38) .
- 2.34 The program will finance: (i) the hiring of individual consultants and/or specialized consulting firms in order to manage the process to clear the DDV zone and replace losses; (ii) the construction of homes to replace those lost; and (iii) the execution of measures to mitigate and compensate for losses (construction and provision of equipment). The cost of indemnification related to payment of property expropriations and/or improvements on property makes part of the national counterpart to the Loan that will finance the BO-0036 Project.
- 2.35 Program design is in accordance with the Bank's Operations Policy on Involuntary Resettlement (OP-710).

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<sup>13</sup> Lands affected (excluding those with improvements) will be dealt with as follows in terms of compensation: (i) large and medium producers: an agreement of free cession will be negotiated with the SNC based on the value of the lot with the highway's implementation (a legal procedure that is socially accepted by this category of producers); (ii) small individual producers (less than 50 hectares), indigenous and small farming communities, and members of rural unions, cooperatives, Mennonite colonies and communal landholders: will be compensated in cash based on the value of the land without improvements, according to prices established by the Agrarian Superintendence.

The following improvements will be compensated for at the cost of the loss: (i) preparation of lands for annual and permanent crops and cultivated pastures; (ii) perennial crops, including investment to cover losses and future profits until the plants begin to produce normally again; (iii) tanning pits, corrals, watering places, ovens and other buildings or affected infrastructure. Nearly 15 rural homes of greater value will be compensated for at market value; another 52 homes of lesser value will be replaced on a case-by-case basis, with a home that is superior to the current one, with a cost per unit estimated at US\$5,000.

<sup>14</sup> Mitigation and compensation measures in rural areas include the implementation of: (i) 11 small rural marketplaces near the highway; (ii) 21 community centers in indigenous communities; (iii) new channels for runoff; (iv) recomposition of the communal center in 4 communities; and (v) support for the socioeconomic reinsertion of the population in 2 communities (next to the bridge on the Grande River). Those 33 communities directly affected will be compensated for all residual and inevitable impacts through the donation of US\$800,000 to carry out small public works to build social infrastructure, and that are a priority for the population.

<sup>15</sup> In the few cases where vulnerable rural inhabitants have been affected, the Program foresees the need for rehabilitation within the remaining portion of the lot, and/or the resettlement of those small landholders who will eventually be dispossessed.



## **2. Program for the Protection of Archeological and Cultural Heritage (US\$ 77,600)**

- 2.36 The goal of this program is to build the Corridor without affecting archeological and cultural Heritage in the region. The project will finance the hiring of specialized individual consultants and/or firms or a specialized institution to work all along the Corridor's extension. This institution will do the following: (i) archeological prospecting before the DDV and in other auxiliary areas in order to identify the presence of archeological sites that could be affected by the works; (ii) rescue excavations in important sites that are within the DDV, and (iii) the characterization of objects and materials rescued. During the first phase of the Highway project, the program will also hire an archeologist who will do follow-up on operations to open the DDV, and also monitor the progress of construction work as regards new sections in order to prevent the destruction of sites that are not identified during the first prospecting. The activation of procedures to handle archeological finds is foreseen.

## **3. Information and Social Interaction Program (US\$ 205,700)**

- 2.37 This program involves the production and dissemination of confidential and up-to-date information of interest to the public as regards the Highway project (works, control of impacts) to authorities, leaders and local population, and the maintenance of channels for dialogue in order to receive input and provide answers to complaints and questions from the population. The program seeks to maintain harmonious relations between those responsible for the highway's construction, authorities and the local population. The Project will finance this program for the road sections in the first phase. The situation area is the area of indirect influence of the Highway project. Execution will be coordinated with the Communications Program (see ¶2.31).
- 2.38 Through the program, financing will be provided for specialized consultancies, publications and publicity on radio and television, and operational costs. The following instruments will be utilized: (i) fliers and offices to provide information to the public; (ii) suggestion and complaint boxes; (iii) informational newsletters on progress of the works and implementation of mitigation actions; (iv) information for the mass media (radio and local TV); (v) notification of important work dates to authorities and communal leaders (meetings in town before building is initiated and after it is finished in each sector); and (vi) training workshops in road education and security for the general population.

## **4. Control of Impact during Construction**

- 2.39 Mitigation of Impacts in Construction Operations: includes measures and works required by the EIA of the Highway project to prevent and minimize the impacts of construction works on the highway on all physical, biotic and socioeconomic phenomenon, in accordance with technical environmental standards and the Code of Conduct for workers. Construction contractors must insist on compliance with this work code which will be verified by the Environmental Supervision. The cost

of these measures and works is included in the construction budgets for each road section.

- 2.40 The Environmental Applications and Monitoring Plan (PASA) includes routines and specifications for monitoring of the execution of PPM programs, particularly as regards environmental control of constructions operations. The Environmental Supervision department of the SNC<sup>16</sup> will carry out the PASA.
- 2.41 The Environmental Supervision department of the SNC (US\$ 1,232,000) will verify compliance with technical environmental norms foreseen in the Highway project's EIA in relation to construction procedures: installation, operation and clean-up of work camps; utilization and recovery of quarries and dumps; the quality of environmental work done by contractors; the implementation of mitigating measures; and monitoring of construction activities. The Project will finance the contracting of specialized consultants (Environmental Inspectors and Social Promoters) who will do systematic monitoring of work operations and will participate in planning and design of solutions. Emphasis will be placed on the prevention of impacts and coordination with those in charge of technical supervision of the Highway project. The Project will finance Environmental Supervision along the entire corridor during the first work phase.
- 2.42 The Environmental Auditing of the Highway project (US\$ 1,111,500), which is the responsibility of the Environmental Authority, the Viceminister of the Environment, Natural Resources and Forest Development (VMARNDF), as stipulated in the Bolivian Law. These entities will verify compliance with environmental legislation and all prerequisites established in the EIA and in the Environmental License conceded to the SNC. The auditor has ultimate operative authority over the SNC and contractors. This post will be stable and the person can only be removed if the Bank expressly does not object. The Project will provide financing during the first phase and all along the Corridor for the work of the following: (i) a specialized team in Environmental Auditing (consultants), and (ii) operating expenses of Auditing Committees, made up of representatives from neighboring communities, who will support inspections outside the work areas.

**E. Description of Management System and Socio-Environmental Management (US\$ 3,013,000)**

- 2.43 The Management System and Socio-Environmental Management of the Project was designed to coordinate and supervise actions described above. This component will provide financing for: (i) the functions of the Project Executing Unit (UEP), which will coordinate, supervise and provide specialized technical support for both plans, (ii) External Financial Audits; (iii) an independent Socio-Environmental Auditor; and (iv) the functioning of entities which support coordination and promote social participation. This will be headed by the MDSP,

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<sup>16</sup> The government and Bank agreed that the SNC will adopt criteria for environmental responsibility (environmental technical specifications, specific responsibilities, personnel to be assigned, procedures for control and environmental management of the works) established in the Project Operations Plan. The SNC will also include bills for bidding for Construction Contracts and Engineering Supervision, and is obligated to comply and assure compliance with specifications and procedures.

since the majority of executing institutions of the Project are linked to this Ministry.

- 2.44 The Project Executing Unit (UEP) will be provided with specialists and consultants, and will be in charge of coordinating the work of entities executing programs. The UEP must also carry out the planned actions, manage and supervise the various contractual relationships, provide technical orientation for execution, resolve technical and institutional gaps in plans and diverse programs, help with redtape to secure documentation and get payments, prepare advance reports and also prepare accounting reports for the MDSP and financing entities.

**F. Project Cost and Financing**

- 2.45 This Project will cost a total of US\$ 26.5 million, of which US\$ 21 million will be financed by the Bank (Special Operations Fund - FOE), and the equivalent of US\$ 5.5 million will be financed by the Borrower as local counterpart. The counterpart may include the equivalent of US\$ 3 million from the Nordic Development Fund (FND). The Borrower commits himself to make sure that the local counterpart funds to be used by the Principal Coexecuting Entities include the required allocation in their budgets, according to the limits imposed by the Ministry of Finance. The portion of the counterpart coming from the NDF shall be transferred as non-reimbursable funds to the Principal Co-executing Agencies and may be underwritten in the Nation's Budget under the External Financing Account.. Table II.1 provides a summary of costs and financing structure per program. The Project Operations Plan contains details on budgets.

**Tabla II.1 – Project Costs and Financing (in US\$)**

Category	Bank	Nordic Fund	Counter-part	Total	%
<b>1. System for Socio-environmental Management</b>	<b>2,580,900</b>	<b>0</b>	<b>432,100</b>	<b>3,013,000</b>	<b>11.4%</b>
1.1. Project Executing Unit	1,659,000		256,500	1,915,500	
1.2. Financial Audit	472,500		90,000	562,500	
1.3. Socio-environmental Auditor	252,000		48,000	300,000	
1.4. Civil Society Participation	197,400		37,600	235,000	
<b>2. Action Plan</b>	<b>11,329,500</b>	<b>2,916,500</b>	<b>1,132,800</b>	<b>15,378,800</b>	<b>58.0%</b>
2.1. Titling and Land Registry (Consultancies, equipment)	2,436,000	2,200,000	464,000	5,100,000	
2.2. Indigenous Program (Consult., equipment)	2,907,000	0	249,000	3,156,000	
2.2.1- Des. Indigenous Orgs. (18 months)	352,800		67,200	420,000	
2.2.2- TCO Management Plans	173,000		32,900	205,900	
2.2.3- Productive Initiatives	252,000		48,000	300,000	
2.2.4- Technical Unit for Management	297,900		56,800	354,700	
2.2.5- Fiduciary Fund	1,600,000			1,600,000	
2.2.6- Equipment for Management Units	231,300		44,100	275,400	
2.3. Environmental Conservation	4,183,600	0	135,900	4,319,500	
2.3.1. Management of Protected Areas (Consultancies, equipment)	2,202,200		44,200	2,246,400	
2.3.2. Forest Conservation (Consultancies, equipment)	1,981,400		91,700	2,073,100	
2.4. Institutional Strengthening and Development Municipal Sustainability (Consult. equipment, works)	1,689,500	716,500	262,300	2,668,300	
2.5. Communications (Consultancies)	113,400		21,600	135,000	
<b>3. Prevention and Mitigation Plan</b>	<b>4,287,600</b>	<b>0</b>	<b>757,100</b>	<b>5,044,700</b>	<b>19.0%</b>
3.1. Compensation for Losses (Consultancies equipment, works)	2,081,100		336,900	2,418,000	
3.2. Archeology (Consultancies)	65,200		12,400	77,600	
3.3. Information and Social Interaction (Consultancies)	172,800		32,900	205,700	
3.4. SNC Environmental Supervision (Consultancies, equipment)	1,034,900		197,100	1,232,000	
3.5. Socio-Environmental Monitoring (Consultancies, equipment)	933,600		177,800	1,111,400	
<b>4. Unforeseen expenditures</b>	<b>903,900</b>	<b>83,500</b>	<b>24,600</b>	<b>1,012,000</b>	<b>3.8%</b>
<b>5. Finance Costs</b>	<b>1,898,100</b>	<b>0</b>	<b>153,400</b>	<b>2,051,500</b>	<b>7.7%</b>
5.1. Inspection and Monitoring	210,000			210,000	
5.2. Credit Commission			153,400	153,400	
5.3. Interests during execution	1,688,100			1,688,100	
<b>Total</b>	<b>21,000,000</b>	<b>3,000,000</b>	<b>2,500,000</b>	<b>26,500,000</b>	

### III. PROJECT EXECUTION

#### A. The Borrower, the Executing Agency and Participating Bodies

- 3.1 The borrower of the proposed financing will be the Republic of Bolivia, which will be responsible for the amortization of the loan and will transfer the Project's funds to the Executing Agency on a non-reimbursable basis. Under the same terms and conditions, the Executing Agency will transfer the resources of the loan and the national counterpart to the Project's co-executive agencies for the implementation of the Project's activities.
- 3.2 The Ministry of Sustainable Development and Planning (MDSP) will be the Project's Executing Agency and will be responsible to the Bank for its implementation. The MDSP will be the Bank's only counterpart agency and will have a Project Executing Unit (UEP), which will be the Ministry's operational branch for carrying out these functions. The UEP'S initial activity will be to hire consultants to train their own personnel and those of the co-executors in areas relating to project management and inter-institutional coordination. The Executing Agency will implement the Project with the participation of the following agencies (Table III-1, Fig. III-1):

#### 3.3 Action Plan:

- a) **Land Ordinance, Titling and Registry Program:** The National Institute for Land Reform (INRA), in which the Judicature Council of Judicial Authority ("Judicature Council") will in turn participate, for activities relating to the Real State Registry of Santa Cruz ("DDRR").
- b) **Indigenous Program:** (i) Organizational Development Subprogram, the MDSP/UEP and the FI in coordination with the beneficiary entities the following indigenous organizations: CPESC, OICH, CCICH-T, CICOL, CIRPAS, CANOB, CIDOB and CABI, legally constituted organizations belonging to CICHIPA, CICHAR and CICHGB, (ii) the Subprogram for Management Plans for Land of Indigenous Origin ("TCOs"): MDSP/UEP; and (iii) the Subprogram of Productive Initiatives: MDSP/UEP and the Foundation for the Humid Tropics.
- c) **Environmental Conservation Program:** (i) Protected Areas Management Subprogram: National Service of Protected Areas (SERNAP) and Foundation for the Development of the National Protected Areas System (FUNDESNAP); and (ii) Forest Conservation Subprogram: Forestry Superintendence (SIF) and Foundation for the Protection and Sustainable Use of the Environment (PUMA).
- d) **Program for Institutional Support and Municipal Sustainable Development:** (i) Subprograms for Municipal Territorial Land Ordinance Plans (PLOT) and Territorial-Environmental Management Training, Urban

Planning, Land Registry, Respect for Cultural Heritage, and Global Proposal for Regional Development: the MDSP; and (ii) Showcase Projects Subprogram: Foundation for the Humid Tropics.

**e) Communication Program: MDSP/UEP**

**3.4 Prevention and Mitigation Plan and Environmental Application and Monitoring Plan (PPM and PASA):** (i) Losses Compensation Program: National Highway Service (SNC<sup>17</sup>), in which the National Institute for Land Reform (INRA) and the Prefecture of Santa Cruz will participate; (ii) Program for the Protection of Archeological and Cultural Heritage: the SNC, in which the National Unit of Archaeology (UNAR) of the Ministry of Education, Culture and Sports (MECD) will participate; (iii) Information and Social Interaction Program, and Environmental Monitoring: the SNC; and (iv) Environmental Auditing of Highway Project: Viceministry of Environment, Natural Resources and Forest Development (VMARNDF).

**3.5 Socio-Environmental Management System:** the Ministry of Sustainable Development and Planning (MDSP).

**3.6** The Project will have the following: (a) Principal Coexecuting Entities: INRA, Judicature Council, SERNAP, Forestry Superintendence (SIF) and SNC. (b) The following entities will be known together as Entities in Charge of Administration of the Fiduciary Funds: FI, FUNDESNAP and PUMA. (c) The Foundation for Technological Farming and Forestry Development of the Humid Tropic (FDTA-TH) will be the Beneficiary Coexecutive Entity. (d) CPESC, OICH, CCICH-T, CICOL, CIRPAS, CANOB, CABI, ; and CICHIPA, CICHAR and CICHGB, where these latter organizations have been legally constituted, will be known as the Project's Beneficiary Entities.

**Box III-1. MDSP  
Ministry of Sustainable Development and  
Planning**

The MDSP brings together the main bodies responsible for environment management. It is responsible for strategic planning by the State and for land ordinance, as well as for planning balanced economic, social and technological growth that conserves biodiversity and protects the environment. Its powers are implemented by vice-ministries and institutions under ministerial guidance. The following vice-ministries are involved: (i) Viceministry for Territorial Planning and Land Ordinance; (ii) Viceministry of the Environment, Natural Resources and Forest Development (VMARNDF)

The agencies under MDSP guidance that are in some way involved in the Project include: National Fund for Forest Development (Fonabosque); System for the Regulation of Natural Renewable Resources (SIRENARE); National Institute for Land Reform (INRA); National Service for Protected Areas (SERNAP); Forestry Superintendence and Agricultural Superintendence (the latter two are autonomous agencies that form part of the SIRENARE). The Ministry of the Affairs of Rural, Indigenous and Aboriginal Peoples (MACPIO) now includes the Viceministry of Indigenous and Aboriginal Peoples' Affairs (VIAPA), which had been part of the MDSP.

<sup>17</sup> The National Highway Service (SNC), associated with the Ministry of Economic Development (MDE), will be the body responsible for highway construction. It is responsible for implementing work on the basic highway system and for maintaining services. The SNC is now in the process of institutional modernization, with the support of the World Bank. It has a Socio-Environmental Management structure responsible for planning and implementing the socio-environmental programs associated with the highway projects executed by PMP-EAMP. Efficient MDSP – SNC planning is vital for the success both of this Project and of the Highway Project.

## **B. Internal Operative Structure of the Project.**

- 3.7 The Project will have a **Socio-Environmental Management System**. The Management Subsystem will guarantee that the Project is correctly and efficiently implemented and that the goals of the programs can be achieved. This system will ensure that the Project is managed with agility, efficiency and transparency, in accordance with Bolivian legislation and the norms of the Bank. It will be made up of: (i) Project Executing Unit (UEP), associated with the Office of the Ministry of Sustainable Development and Planning; and (ii) an independent Socio-Environmental Auditor.
- 3.8 The co-executing agencies listed in Table III-1 will be responsible for implementing programs and subprograms. Some programs will be implemented directly by the UEP. Three subprograms require a 10-year execution period; in these cases, the Indigenous Fund, an International Public Organization, and two Private Foundations, FUNDESNAP and PUMA, together known as “administrative entities” will receive funds in trust and will apply them to the activities entrusted to them through different agreements.
- 3.9 The Socio-Environmental Management Subsystem consists of coordination, participation and consulting mechanisms that will work during the implementation of the programs. These include: (i) the Committee of Coordination and Monitoring (CCS) which brings together the national government agencies directly involved in the Project; (ii) the Participation and Consultation Committee (CPC), a permanent forum for discussion and deliberation with the main agencies representing local governments, NGOs and civil society organizations on the social and environmental aspects of the Highway Project; (iii) the Technical Land Subcommission; and (iv) participation and consultation at the local level during the implementation of the programs.
- 3.10 There will be sectoral coordination between the UEP and the various participating entities -execin order to do the following: (i) to make important decisions, through the CCS; (ii) to manage day-to-day activities through coordination with program managers. Members of the Committees mentioned previously will not receive any special remuneration and will be convened by the MDSP either periodically or when this is deemed opportune, in order to revise and study the development of the Project itself and its relation to the construction of the Santa Cruz - Puerto Suárez connecting highway.

### **1. Project Executing Unit (UEP)**

- 3.11 The UEP is an ad-hoc unit of a temporary nature, assigned and directly responsible to the Office of the Minister of Sustainable Development and Planning. It is in charge of direction, management, general administration, accounting and financial administration of the Project, as well as for monitoring its implementation. The UEP will be created by Ministerial Order in accordance with the terms of reference agreed to with the Bank. The creation and operation of the UEP will be a prerequisite for the first payment.

- 3.12 The UEP, in its first 4 ½ years, until 2006, will be made up basically of: (i) a Manager (Environmental specialist who will be Project Chief); (ii) 3 specialists: one Social, one in Territorial-Environmental Management and Sustainable Development, and one Highway-Environmental Engineer; (iii) short-term consultants; (iv) A Project Administrator; (v) a specialist in financial monitoring and planning, (vi) an accountant; and (vii) a support team. After 2006, when it is foreseen that most of the subprograms will have concluded, the UEP will continue to function until the end of the Project, in the first quarter of 2012, with this personnel: (i) an administrator and a full-time secretary; and (ii) 3 consultants: an accountant and two specialists (one social and one environmental) one month half-yearly. (§2.4). The UEP, the local environmental team of the SNC and Environmental Auditing will share installations in the main office of the Santa Cruz Project.
- 3.13 UEP personnel will be hired by the MDSP as individual consultants, through public invitation to tender. The Manager and the Administrator are being selected in accordance with the Bank's standard procedures in this area. This will be charged to the resources of Loan 929/SF-BO. In the same manner, the rest of the UEP's staff will be hired against resources of Loan 929/SF-BO, financing that will be extended until such time as that Loan's term for disbursement expires, or until the date the present Project is eligible for disbursements, whatever happens first. After this Project has been approved, loan resources will be used to pay the salaries of UEP workers and other incremental administrative costs that may be necessary to set up the UEP and begin its operations. Responsibility for selecting the other workers will fall to the Manager, in consultation with the MDSP. This will be in accordance with the Bank's standard procedures in this area. The Government Fiscal Administration and Control System Act will oversee the responsibilities of all of these workers.
- 3.14 The UEP will be responsible for planning, activating, coordinating, supervising and reporting on the implementation of the programs, specifically: (a) taking a lead role in Project coordination and implementation; (b) promoting the signing of management agreements and contracts among the different organizations involved and coordinating the implementation of their common activities; (c) establishing and periodically updating the detailed Working Plan for the implementation of the Project; (d) in the case of programs or subprograms for which the UEP is directly responsible, the Unit will act as Manager for the specialists and agencies that have been contracted; (e) supervising the implementation of programs for which the Principal Coexecuting Entities and the Beneficiary Coexecutive Entity are responsible; (f) approving the Annual Operations Plan (POA) and transferring the corresponding resources in accordance with the stipulations of the Loan Contract to be signed with the Bank and the agreements signed with the the Principal Coexecuting Entities and the Entities in Charge of Administration of the FF, as may be the case; (g) maintaining permanent control over the development of the Project, through the operation of a monitoring system that includes chronograms, achievement of physical objectives, assessment of effectiveness of actions, evaluation of results in collaboration with participating agencies, and control of budget implementation; (h) carrying out administrative and financial management of the Project, ensuring that Bank procedures are respected in terms of payments,



acquisitions, accounting and documental records; (i) reporting the advances and results of the Project, in accordance with the plan determined by the National Government and the IDB.

- 3.15 Each program/subprogram was conceived as part of a specific management plan, which in many cases will be contracted to small companies, NGOs or specialized agencies, in accordance with the Bank's standard procedures in the area, under the terms of reference also approved by the Bank and under the supervision of the Executing Unit. This kind of contracting should lead to efficient work at a significantly lower cost.

## **2. Independent Socio-Environmental Auditor**

- 3.16 The Project has been designed with emphasis on auditing procedures and results during implementation of the programs, rather than carrying out after-the-fact evaluations. This enables: (i) early detection of possible flaws, misdirection, specific difficulties, or other problems that could compromise the attainment of the Project's goals; and (ii) early correction of these problems (§3.79).
- 3.17 The Project will have an independent Socio-Environmental Auditor who will periodically verify: (i) that the participants respect the agreed socio-environmental standards and procedures; (ii) the advance of the established activities and actions and the results achieved; and (iii) the level of satisfaction of the various social players involved in terms of the implementation of the highway work and the components of the Project. The Auditor will carry out socio-environmental audits on a quarterly basis until the end of 2006, then on a half-yearly basis from 2007 to 2011, or more often if circumstances so require.
- 3.18 The Auditor will be hired with Project funds and selected by the MDSP in accordance with the procedures established in the Loan Contract, with the non-objection of the Bank. The Auditor will act independently and may not have any relationship of mutual interest with the Government or with the agencies and persons involved in the Project. The Auditor will report to the MDSP/UEP and to the IDB, will be contracted for a definite period and may be replaced only with the prior non-objection of the IDB.

## **3. Coordination and Social Participation Authorities**

- 3.19 In the fourth quarter of 1999, the national government constituted the two main authorities for coordinating the socio-environmental aspects of the Highway Corridor Project: (i) the Committee of Coordination and Monitoring (CCS); and (ii) the Participation and Consultation Committee (CPC).
- 3.20 The CCS, in its current form, is an advisory forum for debate and negotiation in order to reach decisions relating to the socio-environmental impact of highway construction work and the regional development this may bring about. The main goal is to facilitate the integration of action taken by government bodies involved in the implementation of the Project. The Committee is chaired by the Viceminister of Public Investment and External Financing and is made up of

representatives of the Viceministry of Transport, Communications and Civil Aeronautics (VMTCAC), SNC, VMARNDF, INRA, Viceministry of Indigenous and Aboriginal Affairs (VAIO), Prefecture of Santa Cruz (PSC) and Unified Funds Board (DUF).

- 3.21 The **CPC**, chaired by the VMARNDF, has permanently monitored the preparation of the Project, providing criticism, suggestions and specific guidance aimed at making adjustments to the Project in terms of its content and its form of implementation (§ 1.46).
- 3.22 It is foreseen that these two authorities will continue working during the entire period of highway construction, in order to guarantee the necessary coordination and participation of public bodies, local governments and social organizations in the implementation of the programs. The committees will participate in the mid-term bi-annual evaluations. (§ 3.68).
- 3.23 The components of the Project's Socio-Environmental Management, including the CCS, CPC and the UEP, will be institutionalized by means of Ministerial and Interministerial Orders, so that the decisions made in committees are agreed to by all their members. These orders will establish the structure, composition and operational regulations of the committees. The delivery of the orders will be a prerequisite for the first payment.
- 3.24 Technical subcommissions must be formed to discuss and coordinate action on specific issues. One potentially complicated issue is land ordinance and titles, along with other topics relating to land zoning and the allocation of fiscal lands resulting from restructuring, forest management, land management in protected areas and others. A **Land Subcommission** within the CPC is foreseen as the forum for coming to agreements on these issues.
- 3.25 The Project will implement suitable public participation mechanisms and methods depending on the kinds of social participants involved (e.g. indigenous peoples, rural communities, local governments and inhabitants, private sector), and the specific state of each program. In addition to the resources projected in some programs, the Project<sup>18</sup> includes resources (see table of Costs (II.1), item 1.4) to finance technical assistance and provide the necessary resources to make social participation a reality, with a focus on representative social participants.

### **C. Technical Implementation of the Project**

- 3.26 The Project's Operations Plan, prepared in collaboration with the various administrative and co-executing agencies, provides details on the implementation of all the programs in the Action Plan, in the PPM-PASA and in the Socio-Environmental Management System. Both the Bank and the Bolivian government agreed upon the Operational Plan.

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<sup>18</sup> The Losses Compensation and Environmental Auditing programs foresee specific resources to support social participation.

- 3.27 The companies that manage and/or implement the subprograms or programs, under contract with the UEP or with the direct co-executives of programs, must always be: (i) contracted under precise terms of reference; (ii) remunerated on the basis of results, in accordance with the attainment of products or goals; and (iii) supervised by the UEP, which will provide technical and managerial guidance to help overcome any shortcomings in the cooperation plan.
- 3.28 The UEP will receive the resources of the loan from the Bank and will have control over the contributions made as the national counterpart. It will also be responsible for correctly applying them to the different categories established in the financing plan. The planned diversity of activities necessitates the use of special fund management criteria. In most cases, the funds to be used to implement actions will be paid directly by the UEP to the co-executors. This will take the form either of advances or reimbursements, in accordance with Bank policy. Three fiduciary funds (see Fig. III-2) will be used for the subprograms that require long implementation periods: Indigenous Organizational Development, Management of Protected Areas and Forest Conservation.
- 3.29 The three fiduciary funds will be established through legally-established and independent non-profit organizations not managed in any way by the State. These three “administrative agencies” of the funds are: the Fund for the Development of the Indigenous Peoples of Latin America and the Caribbean (“Indigenous Fund”), the Foundation for the Development of the National Protected Areas System (FUNDESNA) and the Foundation for the Protection and Sustainable Use of the Environment (PUMA). (¶ 1.58 and footnote on pages 14, 15 and 16).
- 3.30 The fiduciary mechanism is designed to function for 10 years (the last withdrawal of resources will be at the end of 2010; activities will terminate at the end of 2011). The UEP will monitor the use of the funds during the project implementation period and until 2011. (¶ 3.12). The Bank will continue to give its annual non-objection to the POA and control the rendering of costs until all the resources of the fund have been entirely used or until the implementation period for these resources is completed at the end of 2011.
- 3.31 The three fiduciary funds will be established in \$US by the administrative agencies (as founders) in Bolivian banking institutions. The interest accrued by the funds, estimated at 5.5% a year, have already been included in the resources that will finance the projected activities. As remuneration, the administrative agencies will receive 5% of the amount withdrawn annually from the fund to be used in the respective subprograms.
- 3.32 This Project proposes implementation and payment periods of 10 years, beginning on the effective date of the Loan Contract. This period will allow for the implementation of the Subprograms for Organizational Development, Management of Protected Areas and Forest Conservation, as well as for payments for activities related to the control and monitoring of the use of the resources paid out for these Subprograms. The following is also proposed for the implementation of these Subprograms: (a) that the implementation period indicated above also be applied to

the Fiduciary Funds to be established to finance the three Subprograms; and (b) that payment of the Bank's financing resources to the Executing Agency all at once to constitute the FF through the Entities in Charge of the Administration of the FF; that the interest accrued by these resources be used for the implementation of the Subprograms; and that there also be a 10-year period for justifying the use of all these payments.

- 3.33 This proposal has been prepared and submitted for consideration by the Directorate on the basis of the provisions of Section 1 of Article IV of the Charter Agreement, which establishes: "A Fund for Special Operations shall be established from which loans will be made under terms and conditions that make it possible to face special circumstances that may arise in certain countries or projects".
- 3.34 Regarding the periods of execution and payments proposed for this Project, it should be noted that these are not in accordance with Bank policy on the duration of specific projects and traditional global loans (GN-750-1, para. 1.05 (a) and 2.08 (a) and GN-2085-2, Section III. B). However, these policies do not specifically cover this kind of project.
- 3.35 Regarding payments, mechanisms are proposed that are not specifically included in the Bank's usual practices and policies. These mechanisms will allow: (1) most of the resources for these Subprograms to be paid out in a single operation, in order to cover the costs projected in the same; (2) the interest and other income earned by these resources in the aforementioned fiduciary funds to finance the costs projected in the three Subprograms and to act as a significant source of financing; and (3) an equivalent 10-year period for justifying to the Bank the use of all these payments.
- 3.36 Chapter I, Section G of this document provides a justification for this implementation plan using three fiduciary funds.

#### **1. Land Ordinance, Titling and Registry Program (S&T)**

- 3.37 The National Institute for Land Reform (INRA) will implement this program. The Administrative Coordination Unit for the National Land Administration Program (UCAP), a body that administers similar programs financed by the World Bank, along with international aid, will be generally responsible for coordinating the administration of the program in terms of acquisitions and contracting, payments, financial reports and progress reports. The UCAP will act as a liaison to the UEP. Service Management, a unit responsible to the National Administration of the INRA, will be generally responsible for the technical supervision of the program's activities and will maintain inter-institutional contact with the Real State Registry. The VAIO, a section of the Ministry in charge of Peasant Affairs, Indigenous and Autoctonous People (MACPIO) will carry out the necessary reports registering the spatial needs for TCOs<sup>19</sup> that is in demand in the area to be restructured with the

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<sup>19</sup> Two TCOs are in demand. These will be processed as part of this Project's S&T Program: (i) the Pantanal TCO (San Matías Natural Area of Integrated Management – ANMI area), to which the VAIO has already given its approval for admission; (ii) the Otuquis TCO (Otuquis National Park and ANMI area), which the VAIO has not yet declared admissible. The INRA will continue with the normal work plan for S&T activities, in accordance with the regulations of the INRA Act. It will request that the VAIO submit a Spatial

assistance of the consultant that the Executing Agency will hire. (¶ 1.21 , 2.6 to 2.8).

- 3.38 Two specialized firms will be contracted by the INRA and paid for by this Project. They will implement the restructuring, titling and registry in accordance with the Terms of Reference already agreed to with the Bank. The first firm will aid in the restructuring of land (ex-officio) in the province of Chiquitos; the second will do the same in the municipalities of El Carmen, Puerto Quijarro and Puerto Suárez in the province of Germán Busch, and in the protected areas of San Matías and Otuquis. Ex-officio restructuring will include these tasks in this order: gathering supporting information, publicity and broadcasting campaigns, field appraisal work, construction of the preliminary digital database of the legal land register, technical-legal assessment, publication of results, issuing of restructuring certificates or ownership deeds, and entry in the DDRR property register.
- 3.39 The INRA and the Judicature Council will acquire equipment to consolidate and integrate the land information processing systems at, respectively, the INRA and the DDRR offices in Santa Cruz. Both the INRA and the Judicature Council (for the DDRR) will independently hire professionals to install their respective systems. The INRA will hire consulting firms to provide training courses.

## **2. Indigenous Program**

- 3.40 The MDSP/UEP will be the main executor of the Indigenous Program. To implement the subprograms, MDSP/UEP will hire personnel and outside consultants, and will organize seminars, will promote participation from community representatives, and will manage its activities at the technical and administrative levels. The Indigenous Program will have a Commission for Monitoring and Operative Coordination (COSECO), a consulting authority (at the level of indigenous organizations) for the entire Indigenous Program which will act as institutional liaison for the organizations in their relations with the Project and the Government. The members of COSECO are: a representative of each of the beneficiary entities and a representative of the Confederation of Indigenous Peoples of Bolivia (CIDOB).
- 3.41 Nearly 50% of the activities of the Indigenous Program will be financed by an FF managed by the Indigenous Fund, established on the basis of an initial contribution of \$US 1.6 million (see chronogram of payments). Payment of these resources has been linked to the signing of the FF Management Contract and the Fiduciary Contract with the depository bank. A 5-member ad-hoc Directorate will manage

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Needs Report for the TCOs declared admissible and will apply the TCO titling formula to the areas indicated by the VAIO. The Project has earmarked resources to support the VAIO in this work.

<sup>20</sup> Two TCOs are in demand. These will be processed as part of this Project's S&T Program: (i) the Pantanal TCO (San Matías Natural Area of Integrated Management – ANMI area), to which the VAIO has already given its approval for admission; (ii) the Otuquis TCO (Otuquis National Park and ANMI area), which the VAIO has not yet declared admissible. The INRA will continue with the normal work plan for S&T activities, in accordance with the regulations of the INRA Act. It will request that the VAIO submit a Spatial Needs Report for the TCOs declared admissible and will apply the TCO titling formula to the areas indicated by the VAIO. The Project has earmarked resources to support the VAIO in this work.

the fiduciary fund and control the resources withdrawn from it annually. The Government will have an equal number of representatives on this directorate (MACPIO and Prefecture of Santa Cruz), Indigenous Organizations (two delegates appointed by the COSECO), and the Technical Secretary of the Indigenous Fund. The use of resources to be used each year from the FF will obey an annual administrative cycle based on a POA of the Program, that will be subject to the following: (a) preparation and discussion in the midst of COSECO of a proposal of an Annual Plan of the Subprogram that identifies the main activities to be carried out during the term of the POA, depending on the available resources; (b) analysis and approval of a draft POA by the ad-hoc board of the FF; (c) analysis and approval of the POA by the MDSP/UEP with no-objection by the Bank; (d) authorization by the FI for deposit of the funds into the UEP's bank account for the subprogram; (e) analysis and approval of the FF's financial statements by the ad-hoc Board and reporting to the MDSP/UEP; (f) Once the financial statements are approved, the Executing Agency will deliver them to the Bank.

### **3. Environmental Conservation Program**

#### **a) Subprogram for the Management of Protected Areas**

- 3.42 Another FF will be established for this Subprogram. The subprogram will use the institutional and financial structure that already exists for the management of the

##### **Box III-2. SERNAP**

SERNAP was created in 1997 by the Law on the Organization of Executive Power in order to coordinate the operations of the National System of Protected Areas (SNAP), guaranteeing the comprehensive management of the areas considered to be of national interest, to the effects of conserving biological diversity. SERNAP is managed independently at the technical and administrative levels. Its structure and powers are national in scope and its headquarters are in the city of La Paz. SERNAP directly manages the protected areas of San Matías and Otuquis, as well as the Kaa-lyá National Park and ANMI, through an agreement with CABI (an organization of the Guaraní people).

National System of Protected Areas (SNAP), constructed in recent years with the active participation of international aid. This structure includes the National

##### **Box III-3. GEF-II Project**

The GEF-II Project, begun in January 2001, includes 3 stages of 5 years each. In the first stage, 2001-2005, the GEF-II Project will capitalize a Fiduciary Fund dedicated to financing the recurring costs of managing the protected areas (initially 10 priority areas, including San Matías, Otuquis and Kaa-lyá). The Fund will be managed by FUNDESNAPE and will receive an initial provision of \$US 9.78 million. The remaining \$US 33.9 million of the overall \$US 43.7 million for the GEF-II Project will be managed as current funds for 5 years. This amount will be dedicated to strengthening SNAP and SERNAP, through investment projects and technical assistance. The goal of the project is for SNAP to be economically independent after 20 years.

Protected Areas Service – SERNAP, the Foundation for the Development of the National Protected Areas System – FUNDESNAPE, financial management instruments and the GEF-II Program (see Boxes III-2 and III-3 and footnote on page 10) (§ 2.18).

- 3.43 The Project will finance: (i) the activities of the subprogram in 2003 through payments by the UEP to SERNAP, and (ii) the activities of 2004 to 2011 through the FF. For the latter, the UEP will transfer to FUNDESNAPE at the end of 2002 the initial provision of capital in trust (\$US 1,970,000) and FUNDESNAPE will establish specific subaccounts for each area (\$US 950,000 for San Matías, \$US 720,000 for Otuquis and \$US 300,000 for Kaa-lyá). Payment of these resources

has been linked to the signing of the Management Contract and the Fiduciary Contract with the depositary bank. The use of resources withdrawn annually from the FF will be subject to an annual cycle based on an Annual Operations Plan (POA) as follows: (i) preparation by SERNAP of a proposal for an POA for each protected area that identifies the priority actions to be taken during the period in question, and in accordance with technical and financial information provided by FUNDESNAPO to SERNAP. SERNAP will prepare the POA for the three protected areas making sure the activities are financially and technically complementary with those financed by other entities. (ii) analysis and approval of the draft version of the POA by MDSP/UEP provided there is no-objection by the Bank (iii) authorization by the UEP for FUNDESNAPO to transfer of the resources from the FF to be deposited in the bank account established by SERNAP for this purpose; (iv) rendering of quarterly financial statement reports by SERNAP to MDSP/UEP; (v) approval of the financial statements by the MDSP/UEP; (vi) after the analysis and approval of the accounts rendered, the MDSP/UEP will report to the Bank. The administration of the resources as such and that of the Protected Areas will be under SERNAP's responsibility.

- 3.44 At the same time that SERNAP presents the POAs of the three protected areas to the MDSP/UEP, SERNAP must also attach the POAs corresponding to the GEF-II Project for the same three areas in order to allow for effective verification that the respective budgets and activities are in fact complementary. SERNAP will then inform the Bank when these POAs have been approved by the International Development Association (IDA).

#### **b) Forest Conservation Subprogram**

- 3.45 The Forestry Superintendence (SIF) will be the Principal Co-Executing Entity for the Forest Conservation Subprogram. The Project will transfer resources to the SIF for the 2002 and 2003 fiscal years, on the basis of the POAs. The resources for 2004 to 2011 will be deposited all together at the end of 2002 (\$US 1,500,000), in an FF managed by the PUMA Foundation (§ 2.21, Box III-4 and footnote 11). Payment of these resources has been linked to the signing of the Management Contract for the FF and the Fiduciary Contract with the depositary bank. The Fund's goal will be to support the SIF's forest control and regulation activities in the Indirect Area of Influence of the Corridor. Therefore, the Foundation and the Fund will have to be established, to the Bank's satisfaction, before the end of 2002.

##### **Box III-4. Forestry Superintendence (SIF)**

The Forestry Superintendence (SIF) is a self-sufficient public body with national jurisdiction and technical, administrative and financial independence. Its main objective is to facilitate and control the sustainable use and conservation of the country's forested lands. The SIF's organic structure and its powers were established by the Forestry Act, passed in 1997. Its headquarters are in the city of Santa Cruz. The Superintendence receives its financial resources from percentages of forest patents and fines, as well as from cooperation agreements with projects and agencies. It exercises legal powers of Regulation, control, arbitration and auditing.

- 3.46 The use of resources withdrawn annually from the FF managed by PUMA will be subject to an annual cycle based on an Annual Operations Plan (POA) as follows: (i) preparation by the SIF of a proposal for a POA that identifies the priority action

to be taken during the period in question, and in accordance with technical and financial information provided by PUMA to SIF. (ii) analysis and approval of the draft version of the POA by MDSP/UEP provided there is no-objection by the Bank (iii) authorization by the UEP for PUMA to transfer of the resources from the FF to be deposited in the bank account established by SIF for this purpose; (iv) rendering of quarterly financial statement reports by SIF to MDSP/UEP; (v) approval of the financial statements by the MDSP/UEP; (vi) after the analysis and approval of the accounts rendered, the MDSP/UEP will report to the Bank.

#### **4. Program for Institutional Support and Municipal Sustainable Development**

- 3.47 The UEP, in coordination with municipal authorities, will be in charge of the general management of this program and the implementation of municipal PLOT subprograms, urban planning, urban land registry, appraisal of cultural heritage and a global proposal for regional development. The Foundation for Technological Farming and Forestry Development of the Humid Tropic (FDTA-TH) will be the Executing Agency for the four components of the Demonstrational Projects subprogram.
- 3.48 Specialized companies or consultants contracted by the UEP and the FDTA-TH, with no-objection by the Bank, will implement almost all the subprograms in this program through a competitive bidding process. Only the urban planning and cultural heritage projects, which are small-scale, will be implemented by individual consultants hired by the MDSP/UEP, in accordance with the Bank's standard procedures in this area.
- 3.49 The focus of the subprograms is highly participative, involving communities, civil society, authorities, local institutions, national and international NGOs and international cooperation programs. The UEP will be responsible for activating and coordinating the participation of all of these, while guaranteeing the effective implementation of the activities contracted with the consulting firms. To do this, it will receive specialized consulting services that will provide an overview of the challenges to sustainable development.

#### **5. Communication Program**

- 3.50 This program will be implemented directly by the UEP in coordination with the SNC. The UEP will contract a communications consultant to deal with specialized audiences. The UEP's own professionals will develop content and forms of interaction. When necessary, they may also make use of specialists from Principal Co-executing Entities, the beneficiary coexecuting entity and the beneficiary entities.

#### **6. Losses Compensation Program (PRP)**

- 3.51 The SNC, in collaboration with the INRA and the Prefecture of Santa Cruz (PSC), will be responsible for the implementation of the PRP. The initial activities are now being carried out under the INRA, with resources from Loan 929/SF-BO. These include: (i) the reorganization of a 580,000 hectare strip that includes the



land affected by the Right of Way (DDV); (ii) the physical registry of the existing improvements in the DDV. The INRA will push for the registration of property titles in DDDR. The registration of properties within the DDV in DDDR will include guarantees of the indemnization right of the owner in regards to existing improvements. Within the framework of the agreement between INRA, PSC and SNC, INRA will hire a lawyer and an architect that will contribute to: (i) interaction with affected population (ii) discussions regarding houses to be rebuilt (iii) appraisal of legal status of properties and improvements. All information gathered by INRA will help SNC and PSC in the development of the Losses Compensation Program.

- 3.52 The SNC will contract, with Project resources, individual consultants, and/or specialized consulting firms or specialized agencies in work with communities (the “PRP management contractor”), which will implement the social action services and program management. In order to free the DDV (between Pailón and Puerto Suárez – 570 km), the managing contractor will do the following: evaluate the lands and improvements affected; establish a socio-economic register of the families affected; establish co-management groups and negotiate with the affected parties to establish the steps for compensation and restoration; implement a participative process for designing new housing; negotiation individual agreements for the assignment of rights; provide support in compensation payment procedures and in the registration of the transaction; provide technical guidance to restore production; monitor the legal expropriation process in cases of non-agreement. The PRP management contractor will maintain attention stations to attend those affected and to provide social support to the vulnerable part of the population. The SNC will manage a budget to cover the cost of independent technical-legal consulting to assist affected parties. A construction company contracted by the SNC will build 52 housing units and other installations required as compensation.
- 3.53 The Prefecture of Santa Cruz (PSC) is the body empowered to make the expropriations in the Department, in collaboration with the municipalities, where appropriate. The PSC will be responsible for the costs of acquiring the DDV. The Project will finance a PSC legal expert who will be responsible for: (i) monitoring the work, especially the negotiations and agreements, (ii) expediting the procedural steps and confirmation of agreements; (iii) directing expropriation procedures, in exceptional cases.
- 3.54 To implement mitigating and compensatory measures (in 33 communities near the highway route, between Pailón and Puerto Suárez), the management contractor will be responsible for: technical studies and interaction with the communities in order to establish, through a broadly participative process, the action and work to be implemented; technical design; helping the SNC contract the construction company; supervising the work done in the communities; training operators; and transferring the operation to the communities or municipal authorities.

## **7. Program for the Protection of Archeological and Cultural Heritage**

- 3.55 The SNC will be responsible for implementing this program. It will contract individual consultants, specialized consulting firms or agencies specialized in archeology, which will do archeological research and excavations to recover and identify pieces before construction work begins. Archeological monitoring of the advance of working zones along the DDV will be the responsibility of the SNC's environmental Monitoring service at each stage of the work. The working plan will be presented for the prior approval of the National Unit of Archeology (UNAR) of the Ministry of Education, Culture and Sports, which will also monitor the process with program funds.

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<sup>21</sup> The National Highway Service (SNC), associated with the Ministry of Economic Development (MDE), will be the body responsible for highway construction. It is responsible for implementing work on the basic highway system and for maintaining services. The SNC is now in the process of institutional modernization, with the support of the World Bank. It has a Socio-Environmental Management structure responsible for planning and implementing the socio-environmental programs associated with the highway projects executed by PMP-EAMP. Efficient MDSP – SNC planning is vital for the success both of this Project and of the Highway Project.

<sup>22</sup> The Losses Compensation and Environmental Auditing programs foresee specific resources to support social participation.

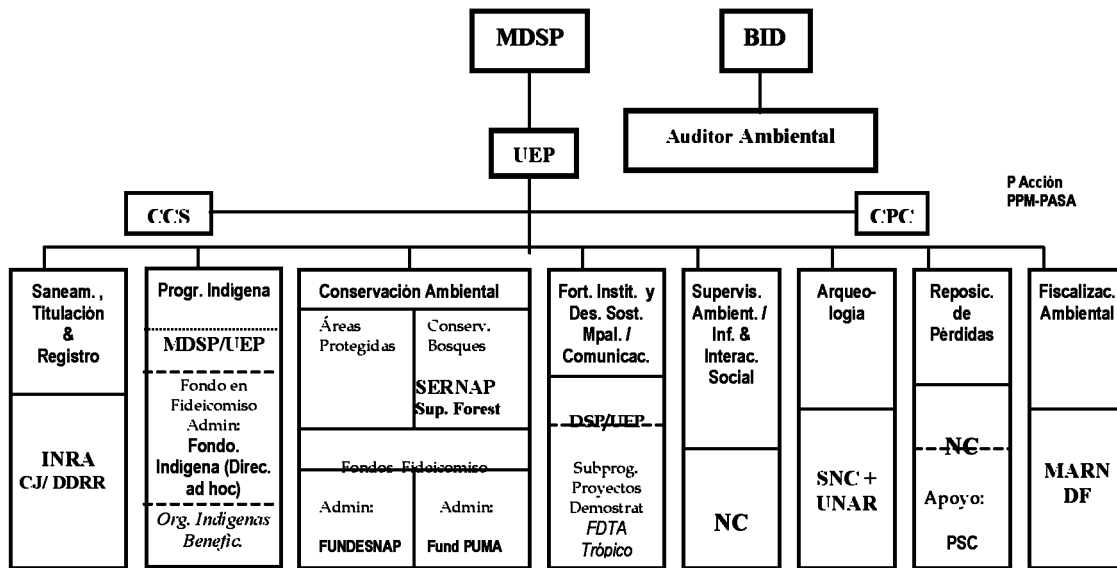
<sup>23</sup> Two TCOs are in demand. These will be processed as part of this Project's S&T Program: (i) the Pantanal TCO (San Matías Natural Area of Integrated Management – ANMI area), to which the VAIO has already given its approval for admission; (ii) the Otuquis TCO (Otuquis National Park and ANMI area), which the VAIO has not yet declared admissible. The INRA will continue with the normal work plan for S&T activities, in accordance with the regulations of the INRA Act. It will request that the VAIO submit a Spatial Needs Report for the TCOs declared admissible and will apply the TCO titling formula to the areas indicated by the VAIO. The Project has earmarked resources to support the VAIO in this work.

**Tabla III.1 – Entidades Co-ejecutoras y Administradoras de los Programas del Proyecto**

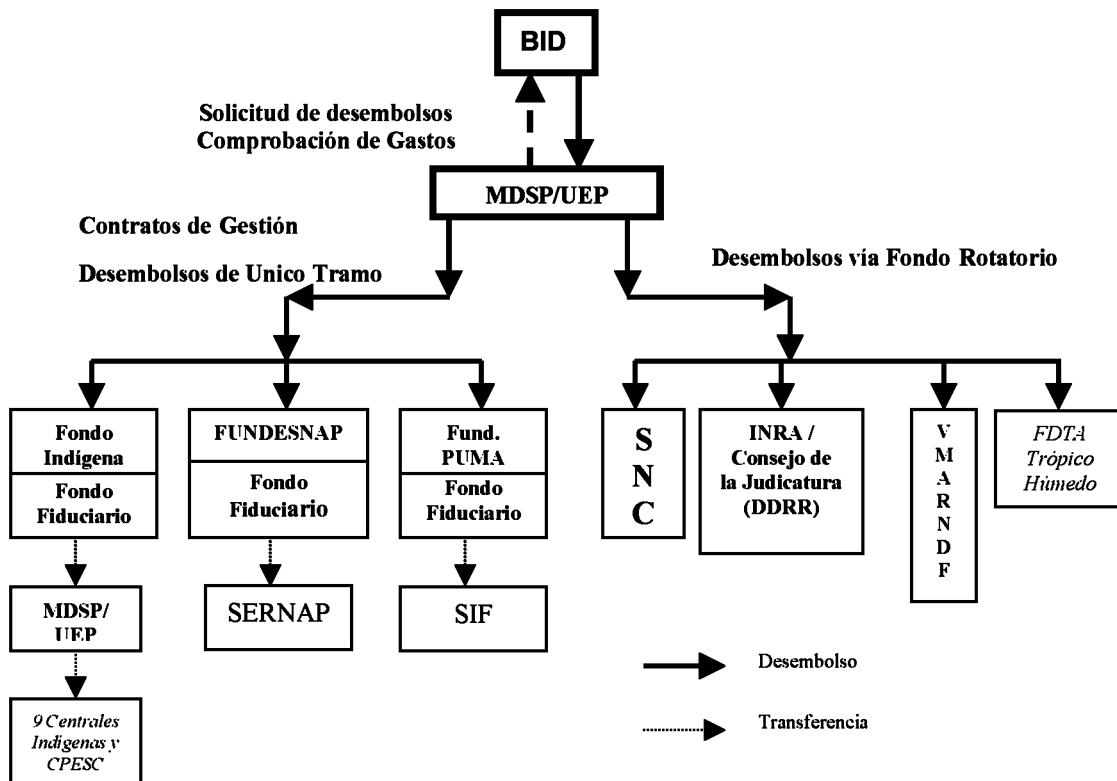
<b>Programa / Subprograma</b>	<b>Entidades Co-ejecutoras Principales</b> ENTIDADES ADMINISTRADORAS FF <i>Entidades Beneficiarias</i>
<b>Plan de Prevención y Mitigación, PASA</b>	
Reposición de Pérdidas ▪ Liberación del DDV ▪ Medidas mitigadoras y compensatorias	<b>SNC, PSC, INRA</b> <b>SNC</b>
Patrimonio Arqueológico y Cultural	<b>SNC, en coordinación con UNAR</b>
Información e Interacción Social	<b>SNC</b>
Supervisión Ambiental, PASA	<b>SNC</b>
Fiscalización Ambiental	<b>VMARNDF</b>
<b>Sistema de Gerencia y Gestión</b>	
Sistema de Gerencia	<b>MDSP/UEP</b>
Sistema de Gestión Socio-Ambiental	<b>MDSP/UEP</b>
<b>Plan de Acción</b>	
Sanearamiento, Titulación y Registro de Tierras	<b>INRA (participa Consejo de la Judicatura por DDRR)</b>
Conservación Ambiental ▪ Manejo de Áreas Protegidas ▪ Conservación de Bosques	(activación a cargo de MDSP/UEP) ▪ <b>SERNAP</b> , FUNDESNAP ▪ <b>SIF</b> , FUNDACIÓN PUMA
Fortalecim. Institucional y Des. Sostenible Municipal ▪ Proyectos Demostrativos ▪ Los demás subprogramas	<b>MDSP/UEP FDTA Trópico Húmedo</b> <b>MDSP/UEP</b>
Indígena ▪ Desarrollo Organizativo  ▪ Planes de Manejo de TCOs ▪ Iniciativas Productivas	▪ <b>MDSP/UEP FONDO INDÍGENA</b> , <i>Directorio ad-hoc<sup>24</sup> (¶ 3.44) –</i> <i>Organizaciones indígenas</i> <i>beneficiarias.</i> ▪ <b>MDSP/UEP</b> ▪ <b>MDSP/UEP + FDTA Trópico Húmedo</b>
Comunicación	<b>MDSP/UEP</b>

<sup>24</sup> El Directorio ad hoc esta compuesto por cinco delegados: 2 de las organizaciones indígenas, 2 del GdB (MACPIO y PSC) y la Secretaria Técnica del Fondo Indígena.

**Fig. III-1 Proyecto de Protección Ambiental y Social del Corredor Santa Cruz – Puerto Suárez**  
**Organigrama de Ejecución**



**Fig. III-2 Esquema de Ejecución Contable/Financiero**



**Tabla III-2 Cronograma de Desembolsos**

Cronograma de Desembolsos del Préstamo del Banco													(Valores en US\$)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Cuenta	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Sub	Administración y Supervisión	Entidad Ejecutora del Proyecto	Participación de la Sociedad Civil	Asesoría Financiera Externa	Plan de Acción	Programa Indígena	Proyecto al FF Indígena	Conservación Ambiental	Manejo de Áreas Protegidas	Aporte al FF p/ APs	Conservación de Bosques	Aporte al FF p/ Bosques	Establecimiento Institucional y Desarrollo Sostenible Municipal	Comunicación	Plan de Prevención y Mitigación	Posición de Pérdidas	Tecnología	4. Sup. Amb. + Información	Ejecución Ambiental	Revisitos	Excepto aportes a los FFs	As a los FFs	General																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	199,900	307,700	304,000	296,000	282,200	65,600	48,100	48,100	48,100	48,100	11,200	1,000	2,000	16,800	33,600	33,600	63,000	297,500	1,600,000	0	232,200	0	1,970,000	227,100	1,500,000	21,000	12,600		327,600	1,623,300	130,200	0	0	231,000	229,900	204,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

**Tabla III-3 Proyecto de Protección Ambiental y Social del Corredor Santa Cruz – Puerto Suárez (BO-0033)**  
**Cronograma de Ejecución**

Componente / Subcomponente	2002		2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II
<b>Sist. Gerencia y Gestión Socioambiental.</b>																						
Unidad Ejecutora del Proyecto		x	x	x	x	X	x	x	x	x												
Control Téc.-Admin. FFs 2a. Fase Proy vial											x		x		x		x		x			
Auditoría Financiera			x		x		x		x		x											
Auditoría Financiera FFs 2a. Fase Proy vial													x		x		x		x		x	
Auditor Socio-Ambiental		x	x	x	x	X	x	x	x	x												
Auditor Socio-Ambiental 2a. Fase Proy vial											x	x	x	x	x	x	x	x	x	x		
Participación de la Sociedad Civil		x	x	x	x	X	x	x	x	x												
<b>Plan de Acción</b>																						
Saneamiento, Titul., Reg. Tierras		x	x	x	x	X																
Programa Indígena (ver Nota 3)		x	x	x	x	X	x	x	x	x												
FF Des. Org. Indig. Depositado			x	x	x	X	x	x	x	x	x	x	x	x	x	x	x	x				
Acciones de Des. Org. financiadas por el FF					x	X	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
Conservación Ambiental																						
Manejo de Areas Protegidas (ver Nota 3)			x	x																		
FF Areas Protegidas depositado			x	x	x	X	x	x	x	x	x	x	x	x	x	x	x	x				
Manejo de A. Protegidas financiado por el FF					x	X	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
Conservación Bosques (ver Nota 3)	x	x	x	x																		
FF Bosques depositado			x	x	x	X	x	x	x	x	x	x	x	x	x	x	x	x				
Acc. de Cons. Bosques financiadas por el FF					x	X	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
Fort. Institucional y Des. Sostenible Mun.		x	x	x	x	X	x	x	x	x												
Comunicación		x	x	x	x	X	x	x	x	x												
<b>Plan de Prevención y Mitigación</b>																						
Reposición de Pérdidas		x	x	x																		
Arqueología		x	x	x																		
Información e Interacción Social 1ª fase (BO-0036)			x	x	x	X	x	x	x	x												
Inf. e Inter. Social 2a. Fase Proy. Vial									x	x	x	x	x									
Supervisión Ambiental 1a. Fase Proy. Vial (BO-0036)		x	x	x	x	X	x	x	x	x												
Sup. Amb. 2a. Fase Proy. Vial									x	x	x	x	x									
Fiscaliz. Ambiental 1a. Fase Proy. Vial (BO-0036)		x	x	x	x	X	x	x	x	x												
Fisc. Amb. 2a. Fase Proy. Vial									x	x	x	x	x									

Las actividades de Sup. Amb., Interacción Social y Fisc. Amb. de la 2a. Fase del Proyecto Vial deberán ser financiadas como parte del mismo  
excepto actividades financiadas con recursos retirados del Fondo en Fideicomiso (FF)

## **8. Mitigation of Impact During Construction**

- 3.56 The National Highway Service's contractors will take the measures required to mitigate the impact of the construction. The cost of such actions, which are mandatory, will be charged to the construction budget for each section.
- 3.57 Financed by the Project during the first phase of the work, a team of professionals with the National Highway Service's Socio-Environmental Management Office will be in charge of environmental supervision all along the corridor. The professional team will be composed of an environmental supervisor, a social specialist, two environmental inspectors, three social promoters and consultants for specific issues. This group will also be responsible for implementing actions designed to provide information and foster social interaction. The Operating Plan agreed to by the Government of Bolivia and the Bank describes the environmental management procedures that will govern the relationship between the supervision of the National Highway Service's work, engineering supervision, environmental supervision and contractors.
- 3.58 The Project will finance the work of Ministry of Sustainable Development and Planning/Vice-ministry of Environment, Natural Resources and Forest Development, the environmental authority with jurisdiction over the Road Project, to supervise the construction work all along the Corridor from an environmental perspective during the first phase of the work. The professional team will be composed of one environmental supervisor, two environmental inspectors, one social inspector, consultants and support personnel.
- 3.59 The Project Executing Unit will provide support for the specific training of environmental supervision personnel and the environmental supervision team. To so, it will use a specialized consulting firm that will prepare the technical instruments for the environmental management of the construction work and provide training to those professionals. D.

### **D. Evaluation and Monitoring**

- 3.60 The Ministry of Sustainable Development and Planning /Project Executing Unit will be responsible for monitoring and evaluating the Project, including: (i) monitoring and supervising the Project's different actions and activities and (ii) overseeing the use of resources by the Indigenous Fund and the Foundation for the Development of the National Protected Areas System and Foundation for the Protection and Sustainable Use of the Environment. The co-executors will present all additional information reasonably requested by the Ministry of Sustainable Development and Planning and the Bank.
- 3.61 While the Project is being executed, the Project Executing Unit will consolidate and submit technical progress reports to the Bank on a quarterly basis within 15 days of the end of each quarter, the contents of which are detailed in the Project Operating Plan agreed with the Bank. To do so, the National Highway Service and the other co-executors will send their reports to the Project Executing Unit in

advance. The visits of the socio-environmental auditor will be scheduled in such a way to enable it to certify the Project Executing Unit's quarterly technical reports and the specific information for each program.

- 3.62 While the Project is being executed, the Ministry of Sustainable Development and Planning /Project Executing Unit will submit annual progress reports to the Bank for each Project component. These reports must be presented within ninety days of the end of each calendar year. The progress of each component must be compared against previously determined quantifiable goals. These reports will be prepared by the Ministry of Sustainable Development and Planning/Project Executing Unit in coordination with the co-executors and will include the following, among other things: (i) a summary of what was actually accomplished during the year compared to what was planned; (ii) an analysis of compliance with provisions of the Loan Agreement, the Logical Framework agreed with the Bank and the respective Annual Operations Plans; (iii) a list of activities by component and an evaluation of acquisitions and the consultants engaged for the period; and (iv) an evaluation of the performance and progress indicators established for each component of the Logical Framework.
- 3.63 The Ministry of Sustainable Development and Planning/Project Executing Unit will meet with the Bank quarterly to analyze the progress of each one of the Program's components based on the reports referred to above and the indicators contained in the Logical Framework.
- 3.64 If during any of these meetings it is decided that changes must be made to the Project, the Ministry of Sustainable Development and Planning/Project Executing Unit will take the appropriate measures to correct the deficiencies identified. In order to accomplish this, the Project Executing Unit will submit to the Bank the corrective measures to be implemented and the timetable for their execution within sixty days of the meeting. This obligation must be included by the Ministry of Sustainable Development and Planning/Project Executing Unit in all agreements and administration contracts signed with Principal Co-executing, Administration or Beneficiary Entities, of the Project.
- 3.65 The Annual Operations Plans for the subprograms and activities of the Project will be presented to the Bank during the execution of the Project as established herein. The Annual Operations Plans must be presented no later than the first of November each year and will include a report on the accomplishments of the year in progress as well as the proposed Annual Operations Plan for the following year.
- 3.66 For the purpose of presenting the Annual Operations Plans and financial statements for the Project to the Bank, it is agreed that the specific execution period for each Project activity and sub-program will be taken into consideration when preparing all such documents.
- 3.67 In the event of a breach by part of the administration entities of the FF and SERNAP and SIF (These last two being Principal Co-executing Agencies) of the terms and conditions for the execution of the Organizational Development, Management of Protected Areas and Forest Conservation Subprograms established in the Loan Agreement and in the management and fiduciary agreements, the



following sanctions, which will also be included in the documents, will be imposed:

- a. In the case of a breach by an FF administrative entity, a period of thirty days will be granted to remedy the situation. If the situation is not corrected within the allotted time, the Ministry of Sustainable Development and Planning will demand that the financing in question be returned and will revoke the entity's status as an administrator of the fiduciary fund in question. It will then turn over all of the funds and deposits returned by the entity in question to another administrative entity chosen by the Ministry of Sustainable Development and Planning, with the Bank's prior consent. To this end, one of the grounds for termination contained in the fiduciary agreement must include the power to extinguish the trusteeship for this reason, i.e., when the trustee's status as such has been revoked.
- b. In the event of a breach by a Principal Co-executing Entity within the first four and a half years of the effective date of the Loan Agreement, a period of thirty days will be granted to remedy the situation. If the situation is not corrected within the allotted time, all disbursements will be suspended. If the situation is not subsequently corrected within a reasonable period of time to be agreed by the Principal Co-executing Entity in question and the Ministry of Sustainable Development and Planning, all of the financing allocated to that co-executor will be cancelled and the co-executor in question will be required to return all of the challenged financing to the trustee. Consequently, in the case of the, Management of Protected Areas and Forest Conservation Subprograms both the financing funds returned and the resources assigned to the ineligible co-executors will be returned to the Ministry of Sustainable Development and Planning for reassignment to the Project, with the prior consent of the Bank and the Borrower. In order to do so, the trusteeship will first be revoked. Hence, one of the grounds for termination contained in the fiduciary agreement must include the power to extinguish the trusteeship for this reason, i.e., when the Principal Co-executing Entity breaches its obligations assumed under the terms and conditions of the Project.
- c. In the event of a breach by a Principal Co-executing Entity after the first four and a half years of the effective date of the Loan Agreement, all breaches will be penalized with the cancellation of all financing assigned to the co-executor in question and the return of the challenged financing resources to the fiduciary fund. Consequently, in the case of the Management of Protected Areas and Forest Conservation Subprograms, , both the financing funds returned and the resources assigned to the ineligible co-executors will be returned to the borrower. In order to do so, the trusteeship will first be revoked. Hence, one of the grounds for termination contained in the fiduciary agreement must include the power to extinguish the trusteeship for this reason, i.e., as indicated in paragraph b. above.

3.68 Given the innovative and complex nature of this operation, during the execution stage the BO-0033 Project Team, along with the BO-0036 Project Team and in

coordination with COF/CBO will conduct administrative missions every six months to monitor the Project. These missions will meet with the CPC and CCS to make mid-term evaluations of the project.

**E. Financial Execution, Accounting and Financial Control of the Project**

- 3.69 The Ministry of Sustainable Development and Planning/Project Executing Unit will receive the loan monies from the Bank and will control the matching contributions at the national level. It will also be responsible for applying the funds accordingly and delivering them to co-executors and fiduciary funds pursuant to the different items in the financing plan. To this end, it will request transaction information and visit the entities periodically based on a timetable to be established by mutual agreement with the Bank
- 3.70 When the loan is declared eligible for disbursement, the Ministry of Sustainable Development and Planning/Project Executing Unit will provide the administrative entities with all of the resources assigned to the fiduciary funds on a one-time basis in order to set up the fiduciary funds. The resources will be used for the particular actions and functions falling under their responsibility and competence as Project participants.
- 3.71 The administrative entities will present the powers of attorney granted to their legal representatives in charge of signing the trust documents and binding the entities legally with regard to the funding. They will also submit a list of the staff members authorized to administer checking accounts. Prior to transferring the monies to the fiduciary funds, the administrators will present to Ministry of Sustainable Development and Planning/Project Executing Unit all supporting legal documentation guaranteeing their compliance with all national laws.
- 3.72 The fiduciary funds will be opened in banks domiciled in Bolivia and denominated in United States Dollars. To this end, the administrator will select the most highly qualified banks based on the statistics issued by the Banking Superintendence and Financial Institutions, accepting offers from each of them to open the fiduciary fund. The bank that offers the best conditions in terms of profitability and security will be chosen to set up the fiduciary fund. The Fiduciary Contracts must include the option that the resources in the FF be applied towards buying Bolivia Government Bonds.
- 3.73 The disbursements will be made to the other co-executors from a Rotating Fund set up for this purpose in the form of advance payments or reimbursements each time they require funding and present the supporting documentation required in each case (¶ 3.87).
- 3.74 The Executor will be liable to the Bank for: (i) implementing and maintaining the appropriate systems for contract administration and for accounting-financial administration and internal control over the administration of Program resources pursuant to the provisions of Clause 7.01 of the general rules governing loan agreements; (ii) presenting disbursement requests and justifying expenses in accordance with the Bank's requirements; (iii) presenting reports on the Rotating Fund every six months, within sixty (60) days of the end of each six-month period;

(iv) preparing and presenting consolidated financial reports on the Program and other financial reports as required by the Bank; and v) maintaining exclusive and separate bank accounts for administering the financial resources and local matching funds. Moreover, in the agreements signed by the Executor and co-executors, the latter will be required to: (i) report to the Executor on the resources received and prepare financial reports as required; (ii) keep accurate accounting and financial records on the use of the Program's resources; (iii) keep all justifying documentation on the transactions and expenses incurred against the financial resources on file and available for inspection by external auditors and/or Bank personnel; and (iv) keep exclusive and separate bank accounts for administering the financial resources and local matching funds.

- 3.75 The assets acquired with Project funding will be maintained according to the national "Basic Standards for the Administration of Goods and Services" (D.S. 25964 of 21 October 2000).
- 3.76 The Ministry of Sustainable Development and Planning Project Executing Unit will review the documentation submitted within seven business days of receiving it and will inform the Bank accordingly. The Ministry of Sustainable Development and Planning/Project Executing Unit will also conduct supervisory visits and "in situ" monitoring on a monthly basis for co-executors and bimonthly for fiduciary fund administrators.
- 3.77 For the hiring of specialized businesses and consultants, drafts of the terms of reference are available in the Project Operating Plan agreed by the Government and the Bank. The Acquisition Plan is found in Annex II.
- 3.78 To ensure the viability of the socio-environmental measures to be implemented, before commencing the highway construction work the Bank agreed with the Executor and some of the co-executors to start contracting and executing certain services on a priority basis before presenting the operation to the Bank's Board of Directors, signing the Loan Agreement or making the funds eligible for disbursement. Most of the cost of these services will be charged against the ATR 929/SF-BO Project.

## **F. Audits**

### **1. Independent Socio-Environmental Audit**

- 3.79 The Project will have an independent socio-environmental auditor who will verify compliance with socio-environmental standards and procedures, the progress of the established activities and actions and the results obtained by the parties involved. These audits will be conducted quarterly. (¶ 3.16).

### **2. External Audits**

- 3.80 While the Project is being executed, the Executor will present the annual financial statements for the Project to the Bank on an annual basis within one hundred and twenty (120) days of the end of each fiscal year. The financial statements will be

audited by an independent private auditing firm as per Bank requirements. In addition, the Executor will present a biannual report to the Bank on the Project's operating and financial audits within sixty (60) days of the end of each six-month period. This report will include the audits of the Project's fiduciary funds. The Bank must approve terms of reference for the audit in advance.

- 3.81 The Bank's procedures for selecting an auditing firm will be followed to choose and hire an auditing firm. It is recommended that the auditing firm be engaged for a minimum of three years, subject to a contract termination clause in the event of dissatisfactory performance. The same auditor will be responsible for external audits and the auditing costs will be financed with the monies from the Bank loan.

#### **G. Acquisitions**

- 3.82 The Bank's standard procedures will be followed for acquiring goods and performing the work associated with the Project. International public tender procedures will be followed when Bank financing is used to acquire goods in the amount of US\$ 350,000 or more and services in the amount of US\$ 3,000,000 or more.

- 3.83 Consulting services will be acquired in accordance with the Bank's standard procedures in this regard and those indicated in Document GN-1679-3. An international public tendering procedure will be followed for the acquisition of consulting services valued at US\$ 200,000 or more. If the selection of a consulting firm for this Project is based on quality and cost, the relative weight of price as an evaluation criterion may not exceed 20%, while the technical or quality element may not account for less than 80%

- 3.84 It should be further noted that the Foundation for Technological Farming and Forestry Development of the Humid Tropics) will be subject to the Bank's standard procedures for public sector institutions in this regard. This entity will be subject to all local legislation applicable to the public sector for the acquisition of goods and services under the limits at which the Bank's policy requires international public tenders. The Borrower undertakes to supervise this entity through the Executive Body, as though it were a public sector institution, with regard to the use of the procedures and the legislation indicated in this paragraph. This will be one of the contractual conditions for the execution of the project. The Project Acquisition Plan will be updated every six months by the Executor.

#### **H. Project Preparedness**

- 3.85 As mentioned above, the following studies and documents were prepared in relation to the Project by consulting firms under the Project Team's supervision: (a) Environmental Impact Study and Strategic Environmental Assessment; (b) a Project Operating Plan which describes each one the Project's programs and subprograms in detail.

- 3.86 The Operating Plan includes: (a) the details of all actions to be carried out; (b) an institutional outline; (c) an itemized budget (d) a detailed timetable of the execution; (e) drafts of the agreements to be signed with the co-executors of the Project; (f) drafts of the Operating Regulations of the fiduciary funds to be created

for the Indigenous Organizational Development, Management of Protected Areas and Forest Conservation subprograms and (g) the terms of reference for the hiring of the personnel to be part of the Project Executing Unit. An updated version of the Operating Plan, approved by the Bank, has been requested as a prerequisite for the first disbursement.

**I. Execution Period and Disbursements**

- 3.87 The execution period of the Project will be ten years, starting on the effective date of the Loan Agreement, for the Executing Unit, the Financial and Socio-Environmental Audits and the Indigenous Organizational Development, Management of Protected Areas and Forest Conservation subprograms and four and one-half years for the rest of the Project activities and subprograms (see Table III-3 which contains a detailed timetable of execution).
- 3.88 The period for Project disbursements will be ten years, starting on the effective date of the Loan Agreement, for the Executing Unit and the Financial and Socio-Environmental Audits and four and one-half years for the rest of the Project activities and subprograms (see Table III-2 which contains a detailed timetable of disbursements).

**J. Rotating Fund**

- 3.89 The establishment of a Rotating Fund with a limit of 10% of the amount of the Bank Loan has been proposed, in view of the number of components and the number of co-executors involved in the Project.

#### **IV. FEASIBILITY OF THE PROJECT**

- 4.1 The characteristics of this Project are unique in that they include a group of actions intended to offer environmental and social support to an environmentally sensitive region. The region will be affected by a project involving the creation of infrastructure and the repair and construction of the Santa Cruz-Puerto Suárez Highway, which will in turn open up the frontier to agricultural and forest operations. The environmental and social impact of the project will be positive if the scheduled programs are implemented as planned. This Project includes all of the actions required to mitigate the environmental impact and covers all of the costs relative to the direct impact of improving the Santa Cruz – Puerto Suárez Highway. With regard to direct impact (the Prevention and Mitigation Plan-Environmental Applications and Monitoring Plan programs), this Project includes all environmental impact mitigation actions and covers all of the costs relative to the first phase of the Highway Project. The mitigation of direct impacts during the second phase of the work will be financed by the Second Phase of the BO-0036 Loan, following the same standards as those applicable to this Project.
- 4.2 The Strategic Environmental Assessment of the Corridor identified positive impacts associated with the implementation of this Project. The Action Plan will have structural repercussions on the region of the Santa Cruz – Puerto Suárez Corridor. The aim is to contribute to the recovery of the affected environment and to promote sustainable development in the region. This will be done through the social and environmental development programs that will precede the highway construction work and help to organize the region's growth. Furthermore, the Project's area of influence includes socially and economically fragile populations that will benefit from the territorial organization proposed by the Project.
- 4.3 The highway repair and construction will have localized negative impacts on the region's biodiversity and natural resources by causing erosive phenomena, changes in the use of the land, deforestation and the extinction of wild fauna in the area directly affected by the highway. The mitigation of these negative impacts, identified in the Highway's Environmental Impact Assessment (EIA), were also considered in the Project's programs.
- 4.4 In short, the proposed Environmental and Social Protection Project will contribute to: (a) ensuring land ownership by indigenous communities, peasants and small landowners, precluding the risk of social exclusion; (b) guaranteeing territorial zoning and preventing the possibility of conflicts over land ownership and the use of natural resources through proper titling and property zoning; (c) disciplining the expansion of the frontier of economic activity, reducing the potential for deforestation induced by the highway and protecting sensitive areas and critical habitats; (d) substantially improving the mechanisms for protecting and administering protected areas and the sustainable management of forest resources; (e) providing greater incentives and an appropriate regulatory framework for the sustainable use of natural resources; (f) notably improving the ability to coordinate and manage socio-environmental aspects within a broad participatory framework and (g) promoting the self-management and long term sustainability of the entities responsible for administering the protected areas and the forest.

- 4.5 The Project includes a series of efficient solutions for achieving the following goals: (i) supporting sustainable, long term environmental conservation; (ii) helping economic development to take place without the excessive costs that would be incurred as a result of disorganized occupancy, improper exploitation and exhaustion of natural resources (soil, forest, water) in the future and (iii) fostering the continuation of the communities' economic activities and social production systems. Experience has shown that if the Highway Project does not make provisions for such mitigating measures, the social and economic cost will be extremely high.
- 4.6 The principal benefits associated with the regulation of land ownership include better administration of property ownership rights and the regulation of how the land is used. This will afford a higher level of legal security that will in turn provide incentives for the sustainable use of land resources and improvements to registration and taxation systems. This in turn will result in more effectiveness in the collection of property taxes, the main source of income for these municipalities. It is also expected that clarifying land ownership will reduce the distorted use of resources and help to correct the imbalanced distribution of the land, alleviating poverty in rural areas by providing the poorest sectors with access to tangible assets.
- 4.7 When designing the activities involving the titling, ownership and registration of rural land, the recent procedural changes developed by the National Institute for Land Reform were taken into account. Based on these changes, the highest possible efficiency of the field and office personnel performing these activities was estimated based on the geographic features of the 7.2 million hectares of land in question, the average size of the plots and the ease of access. The total unitary cost of the titling process is estimated at US\$ 0.67 /ha, broken down into a direct unitary cost of US\$ 0.55 /ha and a unitary cost for supervision and management of US\$ 0.12 /ha. Thanks to the procedural changes, the actual processing time will be reduced from three and one-half years to twenty-two months.

**A. Technical Feasibility**

- 4.8 As a socio-environmental Project, the actions will obviously have beneficial effects on the environment, particularly considering what would happen if the actions were not carried out. The environmental feasibility of the Project is related to two aspects: (i) the degree to which the measures are effectively able to attain the expected results and (ii) the long-term sustainability of environmental protection.
- 4.9 The clarification of land ownership in the Highway Project's area of influence will make it possible to minimize the environmental and social impacts which would otherwise occur as agricultural and forest activities expand as a result of lower transportation costs. The impacts to be minimized include: (i) the impact of expansion of the agricultural frontier on biodiversity and environmentally fragile zones and (ii) the impact of the inability of the occupants of the land to reap the economic benefits associated with increased land prices on the distribution of wealth.

- 4.10 The conservation strategy will act on several different fronts: (i) clarifying the ownership of land and putting large tracts of land suitable for forest management back into the government's hands; (ii) organizing land occupancy; (iii) strengthening the supervision of forests and controlling illegal clearing; (iv) strengthening the management of protected areas, particularly protection tasks; and (v) promoting practices for the sustainable use of natural resources.
- 4.11 The Bolivian legal system discourages deforestation by those wishing to demonstrate occupancy. This stance supports the Project's conservation efforts. The requirements for demonstrating that a piece of land is being used legitimately include the presentation of employment contracts for salaried personnel, livestock registration or authorization to take part in forest preservation or conservation activities, without the need to make "improvements" to the land (i.e., deforestation). In addition, protected areas and Lands of Indigenous Origin will be respected during the titling and zoning by requiring that while secondary information is being gathered prior to the field tests: (i) the results of the diagnosis of land ownership for the Otuquis and San Matias protected areas are taken into account; (ii) the titling process for the Lands of Indigenous Origin and indigenous communities in the direct area of influence has culminated and (iii) protected areas and environmentally sensitive zones are identified on basic maps.
- 4.12 To achieve the stated objectives, the horizon for the protective actions to be financed by the Project extends into the medium term. After this, the institutions must gradually achieve sufficient financial viability to assume the full cost of environmental protection starting in 2012. Long-term sustainability is therefore perfectly feasible but beyond this Project's scope of action. The strengthening of the National System of Protected Areas through the GEF-II Project and the efforts of the Forestry Superintendence to create stable financing mechanisms are parallel initiatives that are very important to achieve this objective.
- 4.13 The strategy is consistent and capable of producing effective results in terms of environmental protection. However, considering that the planned actions are intended to establish only a "minimum" level of adequate protection, real efficiency will depend much more on the balance between: (i) the intensity of the pressure of occupancy (which is usually more a function of factors that are external to and uncontrolled by the region) and (ii) the quality of the supervision and the territorial-environmental management implemented by the entities involved.
- 4.14 The execution of the programs included in the Project does not pose any particular technical or managerial difficulty. Bolivia has businesses and professionals with experience on similar types of projects. The gas pipelines to Brazil are two recent examples of projects where socio-environmental programs were implemented.
- 4.15 In terms of cost, the programs are based on the typical productivity parameters and unit costs for the country. The budgets are tight, but perfectly feasible with an effective management and control system.
- 4.16 The Project Management System includes an Executing Unit with specialized consultants and professionals who will provide celerity, efficiency and technical knowledge in different areas to facilitate the execution of the Project.



**B. Socioeconomic Feasibility and the Impact on Poverty**

- 4.17 After discussing the Project at length with different sectors of society, there is generalized support for the Project. In fact, both the road construction and the proposed socio-environmental measures would provide a response to some of the population's past demands. The legitimacy of the Project and all of its programs is attested to by the consensus obtained and the diverse consultation methods used.
- 4.18 An important aspect that is a central part of the Project is the degree of efficacy of the measures to limit social exclusion and to promote a more equitable distribution of the Corridor's benefits.
- 4.19 The organizational model was discussed with a significant number of representatives of civilian society, including the representatives of indigenous organizations. The participatory design was discussed at length and the pilot experiences were implemented by non-governmental organizations in collaboration with the National Institute for Land Reform. The public information campaigns to inform people of the scope, benefits and deadlines of the titling process prior to the field tests, as well as the dissemination of the results to the public, are mandatory by law to guarantee the transparency of the process. The participation in the execution of the titling procedure by equal numbers of men and women is open and guaranteed under the law.
- 4.20 The Project will have an extremely positive impact on the most vulnerable social sectors as it acts on diverse fronts to fortify society's ability to respond to new challenges. This Project should therefore be considered to qualify as one that promotes social equity (SEQ) as described in the key objectives of the Bank's activities contained in the Eighth Compensation Report (Document AB-1704) since it seeks to: (i) guarantee the ownership of land by peasants and indigenous peoples; (ii) replace the losses sustained by those directly affected by improving their current situation; (iii) fortify the operating capacity and organizational development of indigenous coalitions; (iv) support environmental conservation which is essential to the continuity of the social reproduction systems of autochthonous communities; (v) equip municipal governments to deal better with social demands and responsibilities; (vi) enable social organizations to improve the quality of citizen participation and, in particular (vii) make sure there is space for institutionalized participation in program management.
- 4.21 Law 1715 (National Institute for Land Reform Law) establishes the application of equity criteria in the distribution, administration, possession and use of the land in favor of women, regardless of their marital status. The National Institute for Land Reform has taken steps to encourage the participation of women in the titling and zoning process by (i) issuing instructions to the titling department and zoning units to include enough space for two peoples' names on the titles and (ii) including the names of all persons in possession of a piece of property even when the couples are not married.
- 4.22 An integral part of the Bank's OP710 policy includes the design of involuntary resettlement measures, thus guaranteeing the equity of the programs.

### **C. Institutional Viability**

- 4.23 The executors were kept informed of the preparation of the Operating Plan for the programs, managing to win the support of the different institutions for the execution of the Project. In almost all cases, activities such as these constitute the institutional missions of the executing bodies. Hence, normal management changes should not pose an insurmountable obstacle to program continuity. The programs administered directly by the Project Executing Unit will be the most stable ones.
- 4.24 The execution of all of the plans will require a much better capacity for response from many of the governmental and social entities than what they are able to offer at this time. The hiring of specialized personnel and consultants to support the implementation of the planned activities will help to ensure the necessary coordination and technical training throughout the different stages of the Project.
- 4.25 A critical aspect is the ability of the program executors to coordinate with one another, often hindered by political-partisan antagonism. This risk exists primarily on projects lasting several years. The risk is considered to have been minimized by means of a design that requires few interfaces between the programs. In a scenario where antagonism prevails, the Project may achieve reasonable success only by ensuring that each executor does its part. In a scenario where cooperation prevails, the results could be extremely positive.
- 4.26 All of the programs are part of a series of agreements which will be signed by the Ministry of Sustainable Development and Planning and the different entities acting as co-executors which are responsible for carrying out the programs. The drafts of these agreements, where the responsibilities are defined, have already been prepared and are part of the Project Operating Plan agreed with the Bolivian government.
- 4.27 Several of the leading executing agencies have recently undergone an institutionalization process (National Institute for Land Reform, Forest Superintendence). They have administrative autonomy, their leaders are appointed through competitive public exams and they are more stable. The National Highway Service and National Service of Protected Areas will be completing their institutionalization processes in the near future. This is an important factor for institutional security.
- 4.28 The interest of communities and civic organizations in the effective implementation of the programs and their ability to make themselves heard at the international level will also persuade institutions to fulfill their commitments.

### **D. Financial Viability**

- 4.29 In general, the programs require the executing entities to allocate very few of their own resources. In most cases, the program management system and the operating costs are financed by the Project. Therefore, the usual financial problems in public administration agencies should not pose an insurmountable obstacle to the program's continuity.

- 4.30 The Losses Compensation Program is the only one that requires a significant outlay by the Bolivian government for the payment of indemnities (charged to Loan BO-0036). The national government made a commitment to confirm the existence of such resources in the budget for the Department of Santa Cruz for 2002.

**E. Risks Associated with the Project**

- 4.31 The principal risks associated with the Project have been analyzed. The Project identified a series of safety mechanisms to reduce the probability of such risks and/or their consequence. The principal risks are explained below.
- 4.32 Lack of institutional capacity of the public (and private) entities in charge to carry out the different activities: To increase such capacity, the programs call for specific actions for institutional reinforcement ranging from supplementing the institutions' technical and administrative staffs to the physical conditions required for the performance of their duties.
- 4.33 Lack of interest in executing the Project: The next government may not be as determined to execute the Project, especially once the road construction resources have been secured. This risk will be minimized by: (i) concentrating the execution of the principal socio-environmental measures prior to or during the first months of the construction work and (ii) including clauses in the BO-0036 loan agreement that link disbursements to making reasonable progress toward achieving the goals of the socio-environment programs. Although the other sections of the highway are financed separately from BO-0036, the agreements between the Government of Bolivia and the Bank call for adopting the same socio-environmental standards for the entire highway. Furthermore, the sections financed by the Bank are essential to the Corridor's functionality. In any event, since the Bank and the country cooperate on a regular basis, other solutions could be negotiated to guarantee that the entire Project is implemented.
- 4.34 Risk of social or environmental incidents with international repercussions that compromise the image of the country or the Bank: The project has been designed to be participatory and contains all necessary prevention and control measures. This risk is minimized by establishing a reliable management system that includes social participation to defuse and resolve conflicts before they take on greater proportions.
- 4.35 Risk of legislative modifications: (Forest and Environment Act and National Institute for Land Reform Act) such as the commitments made in the agreements signed in October 2000 which would hinder the timely implementation of important programs. This is a latent risk which could occur. This risk will be minimized by the fact that the contractual commitments precede any possible legislative changes. Furthermore, the establishment of program goals linked to funding diminishes this risk.
- 4.36 Risk of institutional instability that could lead to important changes in some of the main executing organizations: The current legal and institutional framework has

been consolidated following many years of hard work to reach a consensus among the different sectors and interest groups, with the support of international cooperation. The establishment of program goals linked to funding diminishes this risk.

- 4.37 Risk that the road project is cancelled or postponed and that the right of way titled as government land is once again occupied by invaders.

# LOGICAL FRAMEWORK

## FOR THE ENVIRONMENTAL AND SOCIAL PROTECTION OF THE SANTA CRUZ – PUERTO SUÁREZ CORRIDOR

### (BO-0033)

Project	
development of the highway's area of influence	By the end of the Project, the protected areas of San Matias, Otuquis and Kaa-Iya h stabilized and there is no threat of colonization. Within ten years, the new indigenous communities, aided by the Project, are active participants in the region's economic life and have political representatives.
Component I - ACTION PLAN (Mitigation of indirect impacts)	<b>COMPONENT II</b> COMPONENT II - Prevention and Mitigation Program (PMP) and Environmental Applications and Monitoring Plan (EAMP) - (Mitigation of direct impacts)
direct impact of the BO-0036 road construction project	To mitigate the direct impact of the BO-0036 road construction project
e right to land ownership in the area of influence in six municipalities mine <i>centrales indigenas</i> st Conservation Program ected Area Management Program munication Program ocio-environmental management and administration)	Liberation of rights of way, compensation and satisfaction of affected population Recovery of archeological artifacts / relics and registration with the National Unit of Archeology Execution of social interaction and information program Minimization of socio-environmental impact of the construction work Fulfillment of environmental legislation (Achievement of socio-environmental management and administration)

**LOGICAL FRAMEWORK  
ENVIRONMENTAL AND SOCIAL PROTECTION PROJECT  
IN THE SANTA CRUZ – PUERTO SUÁREZ CORRIDOR  
(BO-0033)**

**COMPONENT I - ACTION PLAN (Mitigation of Indirect Impacts)**

Narrative Summary	Indicators	Verification Tools	Assumptions
To contribute to sustainable development in the highway's area of influence			
e			
Impacts of the BO-0036 road construction project mitigated	<p>At the end of ten years, 90% of the three protected areas was free of illegal deforestation and external intervention.</p> <p>At the end of the project, the <i>centrales indigenas</i> have obtained financing and a management plan has been implemented for a</p> <p>At the end of the tenth year it is expected that rather than having lost three million hectares of forest, only 50% of that will be lost</p> <p>At the end of the Project, 90% of the NGOs and local stakeholders (Department of Santa Cruz) are satisfied with the management</p>	<p>Satellite images, Program reports and auditor's reports</p> <p>surveys, press</p>	<p>The Bolivian government supports the execution of the Project</p> <p>There are no social or environmental repercussions of consequence</p>
ts			
Rights to land ownership in the direct area of influence clarified	<p>1.1 At the end of the Titling and Land Registration Program (end of 2004), 100% of the territory in each municipality and 100% of each protected area has been registered in the Real State Registry as government or privately owned land.</p> <p>1.2 - The duration of the titling process, through the signature of the final resolution by the National Institute for Land Reform, is 22 months</p> <p>1.3 -By the end of 2005, a declaration has been issued stating that titling is complete for the entire territory in question</p>	<p>National Institute for Land Reform and Real State Registry records, environmental auditor reports</p>	<p>Constructive and effective social participation</p> <p>The institutional capacity of National Institute for Land Reform/Real State Registry has been strengthened</p>
Indigenous Program executed	<p>Nine <i>centrales indigenas</i> strengthened and operational within 4.5 years.</p>	<p>Evaluations and reports on the execution of the program</p>	

## COMPONENT I - ACTION PLAN (Mitigation of Indirect Impacts)

Narrative Summary	Indicators	Verification Tools	Assumptions
Forest conservation subprogram executed	<p>3.1 At the end of the Project, 100% of the affected areas are assessed using a GIS system. Maps of chaqueos and clearing generated annually using satellite images.</p> <p>3.2 Forest Superintendence covers 100% of its operating and maintenance expenses within 10.5 years.</p> <p>3.3 In 2004, the illegal clearing verified in the Indirect Area of Influence is 50% less than the total area affected (illegal clearing + legal clearing identified on GIS maps).</p>	<p>Satellite images, environmental auditor reports</p> <p>Accounting records of the Forest Superintendence, environmental auditor reports</p>	The Forest Superintendence has the institutional capacity required to carry out the Project activities
Management of Protected Areas subprogram executed	Intentional forest fires, clearing, invasions and illegal activities inside the park drop by 80% starting in 2004.	Evaluations and reports on the execution of the program	
Institutional Reinforcement and Sustainable Development Program executed	<p>5.1 Each of the six municipalities has a Territorial Zoning Plan within six years.</p> <p>5.2 Two new projects were implemented in the region within 4.5 years following the successful exemplary model.</p> <p>5.3 Six municipal land registration projects in operation within 4.5 years.</p>	Project reports	The institutional capacity of the six municipalities has been strengthened Stable institutional framework
Communication Program executed	6.1 Within 4.5 years, complaints by NGOs about the lack of information are down at least 10% compared to the first year.	Project Executing Unit Records	
Socio-environmental Administration and Management)			
ies			
Invitation to tender for a contract to title and zone 7.2 million Ha	\$4,000,000	Project accounting records	Basic cartography was updated and the diagnosis of land ownership in the San Matias and Otuguis Natural Areas of Integrated Management was completed before the Project began.
Official titling and zoning Issuing of titles and registration of property in the direct area of influence of the highway Training course offered to government employees		Project accounting records	No changes in the National Institute for Land Reform Law, Forest Law or Environmental Law.
SIG/CAT software acquired			

## COMPONENT I - ACTION PLAN (Mitigation of Indirect Impacts)

Narrative Summary	Indicators	Verification Tools	Assumptions
Consolidation of graphic and alphanumeric registration information using SIG/CAT Installation of computers and other office equipment to modernize the office of the Real State Registry in Santa Cruz Installation of a TEMIS land registration system in the local offices at Roboré and San José	\$1.100.000		Reinforced institutional capacity of the public and private entities in charge of the different activities.
Creation of a Fiduciary Fund for indigenous organizational development to be administered by the Indigenous Fund	\$1.6 M dollars deposited in the fund before the end of 2002.	Project accounting records	Ratification of the management contract between MDSP and Indigenous Fund and Fiduciary Contract with the bank institution.
Equipment and installation purchases	\$255.000	Project accounting records	
Drafting of TCO Management Plans	\$213.110	Project accounting records	<i>Centrales indígenas</i> willing to participate in a coordinated fashion.
Installation and operation of Technical Unit for the Management of the Indigenous Program	\$367.840	Project accounting records	
Execution of organizational development tasks by nine <i>centrales indígenas</i> in 2002-2003	\$420.050		
Execution of organizational development tasks by nine <i>centrales indígenas</i> with FF resources	approximately \$270.000 per annum		
Creation of a Fiduciary Fund for forest conservation to be administered by the Foundation for the Protection and Sustainable Use of the Environment	\$1.5 M dollars deposited in the fund before the end of 2002.		Ratification of the management contract signed by the Ministry of Sustainable Development and Planning - Forest Superintendence and PUMA Foundation as well as the Fiduciary Contract with the Banking Institution.
Drafting and approval of AOPs			Reorganization by the Bolivian government of the funding resources for forest regulation and control.
Installation and start-up of three forest operating units	\$284.500 in two years	Project accounting records	
Creation of a stationary unit and two mobile brigades	\$169.800 in two years	Project accounting records	
Creation and implementation of a plan for monitoring clearing and forest fires	\$118.800 in two years	Project accounting records	
Execution of forest regulatory and control activities with FF resources	approximately \$245.000 per annum		
Creation of a Fiduciary Fund to support the management of protected areas. to be administered by the Foundation for the Development of the National Protected Areas System	\$1.97 M dollars deposited in the fund before the end of 2002.	Project accounting records	Ratification of the agreement between the Ministry of Sustainable Development and Planning - Foundation for the Development of the National Protected Areas System / National Service of Protected Areas and the Fiduciary contract with Banking Institution.



## COMPONENT I - ACTION PLAN (Mitigation of Indirect Impacts)

Narrative Summary	Indicators	Verification Tools	Assumptions
Hiring of forest rangers, chauffeurs and technical personnel; operation of control and protection activities	\$181.400 in 2003	Project accounting records	<p>\$2.530.000 of GEF II resources are applied to the three protected areas during the period from 2002 to 2006.</p> <p>The GEF-II Project achieves the financial sustainability of the National System of Protected Areas in the medium term.</p> <p>Reinforcement of the institutional capacity of the National Service of Protected Areas.</p>
Equipment purchases for San Matias and Otuquis	\$95.000		
Drafting and approval of AOPs for the three protected areas			
Implementation of AOPs in the three protected areas using FF resources	approximately \$290.000 per annum	Project accounting records	
Hiring of personnel and preparation of municipal Territorial Zoning Plans and workshops	\$544.440	Project accounting records	<p>Agreement signed with the Foundation for Technological Farming and Forestry</p> <p>Development of the Humid Tropic</p>
Hiring of personnel and creation of agricultural-industrial subprograms	\$1.478.820	Project accounting records	
Development of demonstrative projects			
Preparation of urban planning plans	\$88.980	Project accounting records	
Preparation of urban land registration subprograms	\$170.370	Project accounting records	
Preparation of cultural heritage valuation subprogram			
Preparation of regional development proposal	\$135.000	Project accounting records	
Tenders for contract to develop communication program		Project accounting records	
Development of communication program			
Management of the Project for the Environmental	\$1.000.000	Project accounting records	
Operation participation and consultation committee	\$110.000	Project accounting records	<p>Agreements signed by the Ministry of Sustainable Development and Planning and co-</p>
Operation technical land subcommittee	\$18.000	Project accounting records	
Consultation of local participation	\$130.000	Project accounting records	

**LOGICAL FRAMEWORK**  
**PROJECT FOR THE ENVIRONMENTAL AND SOCIAL PROTECTION OF THE**  
**SANTA CRUZ – PUERTO SUÁREZ CORRIDOR**  
**(BO-0033)**

COMPONENT II - Prevention and Mitigation Program (PMP) and Environmental Application  
and Monitoring Plan (EAMP) - (Mitigation of Direct Impacts)

**LOGICAL FRAMEWORK**

Narrative Summary	Indicators	Verification Tools	Assumptions
1			
To contribute to sustainable development in the highway's area of influence			
2			
To mitigate the direct impacts of the BO-0036 road construction project	<p>90% of the population in the area of influence satisfied with how the project is carried out</p> <p>At the end of six years there is no erosion, obstruction of natural drainage or flooding as a consequence of the road construction (Paraiso-San José section).</p>		<p>Ownership and titling executed in ROW</p> <p>No social or environmental incidents or consequence</p>
3			
<p>Rights of way liberated, affected population compensated and satisfied</p> <p>Archeological artifacts / relics recovered and registered with the National Unit of Archeology</p> <p>Social interaction and information program executed</p>	<p>100% of the residents, resettled peoples and communities along the ROW compensated before the road work begins</p> <p>New pieces or artifacts rescued from the right of way are housed in the Roboré Cultural Center within two years</p> <p>3.1 95% of citizen complaints answered in under five days</p>	<p>Surveys, press. Number of lawsuits and delays in scheduled work</p> <p>On-site records, record of the Roboré Cultural Center</p> <p>Complaint log</p>	<p>No political pressures during the process of liberating the ROW</p> <p>No plundering of archeological materials</p>

Socio-environmental Administration and Management achieved)	3.2 80% of the population states its awareness of the planned construction work	Project reports	
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ities			
Tender process to hire firm to execute Loss Compensation Program	\$2,417,950		Compensation funds disbursed in a timely manner
Inventory and execution of physical and socioeconomic cadastre			Signing and ratification of the agreement by the National Highway Service, National Institute for Land Reform and Department of Santa Cruz
Negotiations, expropriations and legalization Resettlement			Ownership and titling executed in ROW Road construction project executed
Hiring of personnel for archeological digs Recovery of cultural heritage Registration and follow-up by National Unit of Archeology	\$77,650		
Hiring of companies to handle informational campaigns	\$205,700		Construction work properly marked and timetable of construction work properly publicized.
Dissemination of information in different media sources			
Environmental supervision of the work Tendering and hiring of Environmental Supervision Team	\$1,232,000		
Site visits, inspection of work Hiring of consulting firm to provide environmental supervision and control for the	\$195,000		
National Highway Service Environmental supervision	\$1,111,450		

### Purchasing Plan

Description	N° Lic.	Amount (US\$)	N° of Months	Financing			Contractor	Public Bidding	
				IDB	NDF	Local		Phase	
<b>Multisectoral Consulting or Services</b>									
1. Action and Management of Loss Compensation Programs	3	520,000	18	84%		16%	SNC	1° sem. 2002	N
Technical Support for Environmental Supervision	1	195,000	6	84%		16%	UEP	2° sem. 2002	N
Environmental Auditor	1	300,000	114	84%		16%	UEP	1° sem. 2002	Inte
Financial Auditor	1	225,000	36	84%		16%	UEP	2° sem. 2002	Inte
Financial Auditor	1	180,000	36	84%		16%	UEP	2° sem. 2005	N
Financial Auditor	1	157,500	42	84%		16%	UEP	2° sem. 2008	N
Mapping and Registry of Land – Polyg. 1	1	1,800,000	15	84%		16%	INRA	1° sem. 2002	Inte
Mapping and Registry of Land – Polyg. 2	1	2,200,000	15		100%		INRA	1° sem. 2002	Inte
Training for municip., training in territorial-environ. mgmt.	1	545,000	28		100%		UEP	2° sem. 2002	Inte
Case Projects – Small non-mech. Producers	1	695,000	41	84%		16%	FDTA-TH	2° sem. 2002	Inte
Case Projects – Livestock	1	375,000	12	84%		16%	FDTA-TH	1° sem.2003	Inte
Case Projects – Land use mgmt., fertilizers	1	410,000	18	84%		16%	FDTA-TH	1° sem.2003	Inte
Land Cadaster	1	170,000	12		100%		UEP	1° sem.2003	N
Technical Proposal for regional development	1	170,000	11	84%		16%	UEP	1° sem.2004	N
<b>Public Works</b>									
Construction of homes	1	260,000	5	84%		16%	SNC	2° sem. 2002	N
Construction of small public works in communities	1	1,460,000	6	84%		16%	SNC	2° sem. 2002	N
	<b>18</b>	<b>9,665,000</b>	<b>----</b>				<b>----</b>		

Note: This table details all significant Project purchases.

PROPOSED RESOLUTION

BOLIVIA. LOAN No. \_\_\_\_/ SF-BO TO THE REPUBLICA DE BOLIVIA

Environmental and Social Protection Project in the Santa Cruz - Puerto Suarez Corridor

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republica de Bolivia, as Borrower, for the purpose of granting it a financing to cooperate in the execution of an Environmental and Social Protection Project in the Santa Cruz - Puerto Suarez Corridor. Such financing will be for the amount of up to US\$21,000,000, or its equivalent in other currencies, except that of Bolivia, which are part of the resources of the Bank's Fund for Special Operations, and will be subject to the "Special Contractual Conditions" and to the "Financial Terms and Conditions" of the Executive Summary of the Loan Proposal.