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Report No: 59305-BO

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF
SDR 69.65 MILLION
(US\$ 109.5 MILLION EQUIVALENT)

TO THE

PLURINATIONAL STATE OF BOLIVIA

FOR THE

NATIONAL ROADS AND AIRPORT INFRASTRUCTURE PROJECT

April 06, 2011

Sustainable Development Department
Country Management Unit for Bolivia, Chile, Ecuador, Peru and Venezuela
Latin America and the Caribbean Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective March 4, 2011)

Currency Unit = Bolivian Bolivianos
BOB7.01 = US\$1
US\$1.58 = SDR1

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AASANA	<i>Administración de Aeropuertos y Servicios Auxiliares a la Navegación Aérea</i> Airport and Aviation Services Administration
ABC	<i>Administradora Boliviana de Carreteras</i> National Road Agency
ABT	<i>Autoridad de Bosques y Tierra</i> Authority on Forest and Land
ADT	Average Daily Traffic
CIPTA	<i>Consejo Indígena del Pueblo Tacana</i> Counsel for the Indigeneous Tacana People
DA	Designated Account
EA	Environmental Assessment
EIRR	Economic Internal Rate of Return
EMP	Environmental Management Plan
FM	Financial Management
GAC	Governance and Anti-corruption
GDP	Gross Domestic Product
GOB	Government of Bolivia
HDM-4	Highway Development and Management Tool
IADB	Inter-American Development Bank
ICAO	International Civil Aviation Organization
IDA	International Development Association
IPP	Indigeneous Peoples Development Plan
INRA	<i>Instituto Nacional de Reforma Agraria</i> National Agrarian Reform Institute
M&E	Monitoring and Evaluation
MOPSV	<i>Ministerio de Obras Públicas, Servicios y Vivienda</i> Ministry of Public Works, Services and Housing
NP	National Park
NPV	Net Present Value
ORAF	Operation Risk Assessment Framework
PND	<i>Plan Nacional de Desarrollo</i> National Development Plan

PRIPA	<i>Plan de Reasentamiento e Indemnizaciones de Poblaciones Afectadas</i> Resettlement and Compensation Plan
PRN	Primary Road Network
ROW	Right of Way
SA	Social Assessment
SIL	Specific Investment Loan
SERNAP	<i>Servicio Nacional de Áreas Protegidas</i> National Service for Protected Areas
TOR	Terms of Reference
VIAS	<i>VIAS BOLIVIA Administradora de Rodaje y Pesaje</i> Road Operation and Axleload Control Agency
VIPFE	<i>Viceministerio de Inversión Pública y Financiamiento Externo</i> Viceministry for Public Investment and External Financing
VOC	Vehicle Operating Cost
WB	World Bank

Regional Vice President:	Pamela Cox
Acting Country Director:	Laura Frigenti
Sector Director:	Laura Tuck
Sector Manager:	Aurelio Menendez
Task Team Leader:	Gylfi Palsson

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PAD DATA SHEET

Bolivia
National Roads and Airport Infrastructure Project

PROJECT APPRAISAL DOCUMENT

Latin America and Caribbean
LCSTR

Date: April 06, 2011 Acting Country Director: Laura Frigenti Sector Director: Laura Tuck Sector Manager: Aurelio Menendez Team Leader: Gylfi Palsson Project ID: P122007 Lending Instrument: Specific Investment Loan	Sector(s): Roads and highways (95%); Aviation (5%) Theme(s): Rural services and infrastructure (P), Environmental Policies and Institutions EA Category: B
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Project Financing Data:

Proposed terms:

Amount (US\$M): 109.5
 Proposed Terms (IDA): Standard Credit
 Grace Period (Years): 10
 Years to Maturity: 20
 Service Charge: 0.75%

Loan Credit Grant Guarantee Other:

	Total Amount (US\$M)
Total Project Cost:	129.2
Cofinancing:	0
Borrower:	19.7
Total Bank Financing:	109.5
IBRD	0
IDA	109.5
New	100.0
Recommitted	9.5

Borrower: The Plurinational State of Bolivia

Responsible Agencies:

Administradora Boliviana de Carreteras (ABC)

Contact Person: Luis Sánchez Gómez

Telephone No.: 235 7220; 233 4767

Fax No.: 239-1764

Email: lsanchez@abc.GOB.bo

Administración de Aeropuertos y Servicios Auxiliares a la Navegación Aérea (AASANA)

Contact Person: Cnl. Raúl Velasco Ramos

Telephone No.: (501-2) 2370341 -43

Fax No.: 235-1341

Email: sistemas@asana.bo

Estimated Disbursements (Bank FY/US\$ m)

FY	2012	2013	2014	2015	2016	2017
Annual	10	22	30	25	14	8.5
Cumulative	10	32	62	87	101	109.5

Project Implementation Period: 5 years

Expected effectiveness date: October 1, 2011

Expected closing date: December 31, 2016

Does the project depart from the CAS in content or other significant respects?

Yes No

If yes, please explain:

Does the project require any exceptions from Bank policies?

Yes No

Have these been approved/endorsed (as appropriate by Bank management)?

Yes No

Is approval for any policy exception sought from the Board?

Yes No

If yes, please explain:

Does the project meet the Regional criteria for readiness for implementation?

Yes No

If no, please explain:

Project Development Objectives – To improve the year-round transitivity of the San Buenaventura – Ixiamas national road and improve the safety, security and operational reliability of the Rurrenabaque Airport.

Project description – The Project comprises three components: (i) Improving the San Buenaventura – Ixiamas National Road (*US\$118.2 million – US\$103.5 million IDA and US\$14.7 million GOB*); (ii) Improving the Rurrenabaque Airport (*US\$6.0 million – fully IDA financed*); and (iii) Institutional Strengthening of ABC and AASANA, and other relevant entities (*US\$5.0 million – fully GOB financed*).

Safeguard policies triggered?	
Environmental Assessment (OP/BP 4.01)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Natural Habitats (OP/BP 4.04)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Forests (OP/BP 4.36)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Pest Management (OP 4.09)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Physical Cultural Resources (OP/BP 4.11)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Indigenous Peoples (OP/BP 4.10)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Involuntary Resettlement (OP/BP 4.12)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Safety of Dams (OP/BP 4.37)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Projects on International Waterways (OP/BP 7.50)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Projects in Disputed Areas (OP/BP 7.60)	<input type="radio"/> Yes <input checked="" type="radio"/> No

Conditions and Legal Covenants:

Financing Agreement Reference	Description of Condition/Covenant	Date Due
Article V, Paragraph 5.01(a)	The Additional Conditions of Effectiveness consist of the following: the ABC Subsidiary Agreement and the AASANA Subsidiary Agreement have been executed on behalf of the parties thereto.	Effectiveness
Article V, Paragraph 5.01(b)	The Additional Conditions of Effectiveness consist of the following: the ABC Operation Manual and the AASANA Operation Manual have been adopted by ABC and AASANA respectively, all in a manner acceptable to the Association.	Effectiveness
Schedule 2, Section I, Paragraph A(b) (i)	The recipient shall cause ABC and AASANA to ensure that a team of dedicated professionals is established within ABC and AASANA and thereafter maintained, throughout Project implementation, to provide technical and administrative support to the technical focal points in the department and units concerned of Project implementation. Said teams shall further operate with structure, mandate and resources satisfactory at all times to the Association; and consist of staff, each having qualifications and experience satisfactory to the Association including among them social, environmental, contract management, monitoring and evaluation, and procurement specialists, as the case may be, all selected and appointed not later than three months after the Effective Date, in accordance with the relevant provisions of Section III of Schedule 2 to this Agreement.	3 months after effectiveness & throughout the Project

<p>Schedule 2, Section I, Paragraph B(a)(b) and (c)</p>	<p>The Recipient shall cause ABC and AASANA to carry out the Parts of the Project under their responsibility in accordance with the provisions of: (a) the Indigenous Peoples Development Plan; (b) the Resettlement and Compensation Plan (with respect to Part 1 of the Project) and the Abbreviated Resettlement Plan (with respect to Part 2 of the Project); (c) the Environmental Management Plans and additionally, with respect to Part 1 of the Project, the mitigation measures derived from the Study on Potential Environmental Impacts Associated to the Rehabilitation of the road <i>San Buenaventura-Ixiamas</i>.</p>	<p>Throughout project</p>
<p>Schedule 2, Section I, Paragraph C.3</p>	<p>The Recipient shall, and shall cause AASANA to ensure that the runway constructed under Phase I of the <i>Rurrenabaque</i> Airport Improving Program, and currently in operations, is regularly maintained and continues to be operational throughout Project implementation in a manner satisfactory to the Association, as specified in the AASANA Operational Manual. The Recipient shall, and shall cause AASANA, to promptly carry out, at the Recipient's own expenses, the necessary works to repair said runaway in case of material or structural failure (as determined by both the Recipient and the Association), in order to maintain it operational.</p>	<p>Throughout project</p>
<p>Schedule 2, Section I, Paragraph C.4</p>	<p>The Recipient shall ensure, throughout Project implementation, that (a) sufficient funds are available for the successful implementation of Part 3 of the Project (including those funds required by ABT, SERNAP and VIAS BOLIVIA for their contribution to the implementation of Part 3(b) of the Project; and (b) with respect to Part 3(b) of the Project, ABT, SERNAP, and VIAS BOLIVIA provide timely and quality technical contributions to part 3(b) of the Project at the request of ABC with respect to the activities set forth in said Part 3(b) of the Project.</p>	<p>Throughout project</p>
<p>Schedule 2, Section I, Paragraph C.5</p>	<p>The Recipient shall create and maintain operational a participatory working group with composition and structure acceptable to both the Recipient and the Association, for the sustainable development of the area economically benefiting from the Project. Said working group may be composed by representatives from affected municipalities, government entities and civil society organizations working in the area, as well as other concerned stakeholders.</p>	<p>3 months after effectiveness & throughout the Project</p>

I. Strategic Context

A. Country Context

1. **Bolivia continues to have high poverty rates despite reduction in recent years, but has weathered the global crisis reasonably well and is seeking to reactivate growth.** With around 60% of its population living below the poverty line and a Gini coefficient 0.56, Bolivia is one of the poorest and most unequal countries in Latin America. The situation is graver in rural areas and for indigenous peoples, where moderate poverty reaches 77.3% and 66.5%, respectively. Although economic growth fell from 6.1% in 2008 to 3.4% in 2009, it remained one of the highest in the region. Total public debt fell from 77% of Gross Domestic Product (GDP) in 2005 to about 33% in 2009.

2. **The Government of Bolivia (GOB) is implementing the National Development Plan (PND, *Plan Nacional de Desarrollo*),** approved on June 16, 2006. The PND has the goal of reducing poverty and social exclusion and is a comprehensive plan that includes provisions for strengthening democratic institutions, developing trade, and providing food security. It also promotes improvements in transport infrastructure and the sustainable development of tourism and agricultural production. The PND aims to improve and integrate the national transport system in all its forms (roads, railway, river, aviation and inland lake transportation). Among the policies and strategies proposed by the PND is a strategy for road development and maintenance, which seeks the physical integration of the country in support of the productive sector.

3. **Importance of the sector to the country's economic development.** The transport sector is essential to the country's economy, representing 9% of GDP, 37% of executed public investment, and about 6% of employment. The sector is critical in integrating the country's diverse areas, unlocking large and remote areas and spur economic development through trade, improve and enhance access to markets and mobility of people and promote tourism.

B. Sectoral and Institutional Context

4. **The Ministry of Public Works, Services, and Housing (MOPSV)** is preparing a national sector strategy to articulate the investments in the sector in an integrated and sustainable manner. The proposed strategy targets the costs of undertaking maintenance activities and the costs of transport services and will include measures to promote competition, development and maintenance of transport infrastructure in the design, construction and axleload control.

Primary Road Transportation

5. **Road network in Bolivia.** The road network in Bolivia is comprised of three categories: (i) primary road network (PRN), managed by the national road agency (*Administradora Boliviana de Carreteras*, ABC), under which VIAS BOLIVIA, the Road Operation and Axleload Control Agency falls; (ii) secondary road network, under the responsibility of prefectures and managed through the prefectural road services; and (iii) tertiary road network, under municipal responsibility. In 2008, the PRN constituted approximately 16,000 Km, 30% of which were paved, 49% gravel roads, and 21% dirt or earth roads.

6. **Road Transport Sector and ABC.** ABC's budget execution has more than quadrupled from US\$114.9 million in 2002, to approximately US\$566 million in 2010, 79% of which was allocated to road construction, and periodic maintenance and road rehabilitation (US\$414 million and US\$35 million respectively), while the remaining 21% was allocated to routine maintenance (US\$49 million) and ABC operation.

7. **Sector Challenges.** Among the principal sector challenges are Bolivia's natural obstacles, including: i) being landlocked; ii) a geography divided into three main regions: lowlands, valleys, and high plateau, each different in terms of accessibility, availability of building materials, traffic volume and entrepreneurial development; iii) rain patterns that cause rivers to swell and threaten bridges and road infrastructure; and iv) geological conditions that cause significant landslides. A further impediment to the improvement is insufficient investment planning at the sectoral level, as well as weaknesses in project management at ABC.

Air Transportation

8. **The Administration of Airport and Aviation Services (AASANA)** is mandated to plan and manage airports, and control Bolivian airspace and is self-financed through airport taxes. Sustained underfunding of AASANA has adverse effect on operation and maintenance of most airports in the country. In 2008, Bolivian airports handled 3.6 million arriving and departing passengers, about 2.8 million (78%) of which were domestic.

9. **Rationale for Bank involvement.** Building on lessons learned from a current road operation (Road Rehabilitation and Maintenance Project, P068968/Cr. 3630-BO), this project will continue to support the sector in general, enhance the work of strengthening ABC's capacity and improve the accessibility of key segments of the North Corridor. As the largest share of the funding is for upgrading of a road that cradles the Madidi National Park, Bank's involvement aims at helping ensure that rigorous safeguard standards are adhered to.

10. The broad-based policy of the GOB is to develop new airports and upgrade existing ones. The project complements this policy, engages in developing the subsector, and promotes the economic expansion of the area serviced by the airport by promoting the growth of higher-income tourism and ecotourism. Through improving the usability of the airport, Bank involvement promotes more reliable service and enables development, in turn benefiting area residents by facilitating enhanced and sustainable growth and employment opportunities.

C. Higher Level Objectives to which the Project Contributes

11. **The proposed Project supports the objectives of the PND and the current Interim Strategy Note.** A main objective of the operation is to support the development of the region neighboring the San Buenaventura – Ixiamas road, including the Rurrenabaque airport just east of San Buenaventura, and the area it services. The project will contribute to the economic integration with Beni and Pando Departments to the east and north and eventually onto Brazil, and points broadly southeast onto the Departments of Santa Cruz and Trinidad, as well as with southern part of La Paz Department. The economic integration should lead to increase in production and lower price to market of the agricultural goods currently being produced in the project area. Other road projects in the North Corridor (but South of the proposed project), to

which the proposed investment links and which complement this investment, have already secured financing worth US\$350 million by the Inter-American Development Bank (IADB) and the Government of Brazil, allocated to the improvement of the existing road sections Santa Bárbara – Rurrenabaque – Riberalta. The area will also benefit from more reliable aviation services, which encourages development of higher-value tourism services, such as ecotourism.

12. Furthermore, the proposed Project complements two of the four pillars of the latest World Bank Group’s Interim Strategy Note 2010-2011 (Report # 48372-BO) discussed by the Executive Directors on June 2, 2009: Pillar I (Productive development and support to production) and Pillar II (Sustainable Development) by, respectively: (i) encouraging the development of agricultural production along the San Buenaventura – Ixiamas corridor; and (ii) encouraging exports of goods produced along the corridor to La Paz and other Bolivian cities, and supporting a policy of development of higher-value and environmentally-friendly tourism.

II. Project Development Objectives

A. PDO

13. To improve the year-round transitability of the San Buenaventura – Ixiamas national road and improve the safety, security and operational reliability of the Rurrenabaque Airport.

B. Project Beneficiaries

14. The project will open opportunities going far beyond the scope of the road and the airport rehabilitation with potential spillover benefits reaching the overall region. Current agricultural production in the area is primarily on subsistence basis and with improved road and year-round transitability it is expected that products of the area reach the Altiplano region. The impact will be particularly strong for the production of sugar, cacao, and agroforestry products. Indirect beneficiaries are the 18,000 inhabitants of the small villages and settlements along the road and inhabitants of the cities of La Paz and El Alto. Rurrenabaque with about 18,400 inhabitants, is an important tourist destination, given its proximity to the Madidi National Park, and was visited by around 21,000 tourists in 2009. Most inhabitants are dependent on the continuity and sustainable development of the tourism industry for their livelihood. Indirect beneficiaries are existing and future tourists in the area. Direct project beneficiaries include private motor vehicle users, commercial passenger transportation services, as well as freight transporters that will benefit from reduced travel times and repair costs. Users of transport services will benefit through increased frequency, reliability and comfort of bus services and improved access. Aviation passengers and users of air cargo services will have reliable, safe and comfortable airport.

C. PDO Level Results Indicators

- i) Reduce the transport costs to the San Buenaventura to Ixiamas road users, including vehicle operating costs and shortening travel time (US\$ cents/vehicle-km).
- ii) Increase the number of inbound and outbound flights actually operated at the Rurrenabaque Airport as per the published schedule, in percentage of the total scheduled flights (% of the total scheduled flights that take place).

III. Project Description

15. The project has three components with a total investment estimated at US\$129.2 million, of which US\$109.5 million will be financed by the International Development Association (IDA). The components are described below. For a detailed project description see Annex 2.

A. Project Components

16. **Component 1. Improving the San Buenaventura – Ixiamas National Road** (US\$118.2 million – US\$103.5 million IDA and US\$14.7 million GOB): (a) Improving the San Buenaventura–Ixiamas National Road through the carrying out of the necessary civil works and supervision activities for, inter alia: (i) the completion of an asphalt concrete pavement; (ii) the rehabilitation of existing drainage and other road protection structures; and (iii) the construction of approximately 21 bridges; and (b) Provision of support for the carrying out of the necessary audits under the Project.

17. The improvement and associated supervision of the 113.65 km road is expected to cost an average of about US\$0.9 million per km. The road in the prefecture of La Paz falls under the PRN, which connects the main departmental cities and highways, and will be part of the PRN that joins the city of La Paz with the cities of Cobija and Trinidad, the capitals of Pando and Beni prefectures respectively. It will also help link cities such as Rurrenabaque, Reyes, Santa Rosa, Yata, Puerto Cabinas, and Riberalta. The alignment of the technical design follows the alignment of the current road, including its initial 2 km which traverse the urban area of San Buenaventura. Significantly, between Km 52 and Km 55 the road is diverted to bypass the town of Tumupasa. In this component the Indigenous Peoples Development Plan (IPP) will also be implemented.

18. **Component 2. Improving the Rurrenabaque Airport** (US\$6.0 million – fully IDA financed): (a) Supporting Phase II of the Rurrenabaque Airport Improvement Program, through: (i) the carrying out of the necessary civil works and supervision activities for the construction of one new taxiway, apron, control tower, operations building, rescue and fire fighting buildings, an access road, and a passenger terminal; and (ii) the acquisition and installation of aviation control, rescue and firefighting equipment; and (b) Provision of support for the carrying out of the necessary audits under the Project.

19. The airport handles about 31,000 passengers annually, nearly solely through flights from La Paz. The project aims through better infrastructure and key equipment at enhancing the safety and security of the airport and improving conditions for operational reliability that will allow flight operation under conditions which now prohibit landings and departures.

20. **Component 3. Institutional Strengthening of ABC and AASANA, and other relevant entities** (US\$5.0 million – fully GOB financed). This component consists of:

(a) Strengthening the capacity of: (i) ABC and (ii) AASANA, to perform their functions effectively and efficiently, through the provision of technical assistance, training, and incremental operational costs required for Project administration and monitoring, and to implement the Good Governance and Anti-Corruption Action Plan.

(b) (i) Strengthening *Autoridad de Bosques y Tierra (ABT)* monitoring capacity, through: (A) the construction of two checkpoints to prevent illegal logging and oversight productive and tourism activities in the the areas north of Ixiama and San Buenaventura, integrated with axleload controls administered by VIAS BOLIVIA; (B) the provision of vehicles, computers and, communication equipment, for the carrying out of inspections in the different areas under ABT's jurisdiction; (C) the provision of technical assistance for the carrying out of studies aimed at: (1) assessing illegal logging in the area benefiting from the Project as well as providing recommendations for diminishing it; and (2) reviewing and updating existing policy on forest concession and updating of its implementation instruments, if necessary (i.e. management plans and financial capacity assessment); (D) the acquisition of high resolution satellite images during Project implementation, for the purposes of tracing changes in forest cover in the area benefiting from the Project; and (E) the carrying out of technical workshops for intercultural communities, indigenous population and municipal authorities on various topics related to sustainable forest management.

(ii) Strengthening *Servicio Nacional de Áreas Protegidas (SERNAP)* monitoring capacity, through: (A) the provision of personnel, equipment and vehicles for the prevention of illegal logging and poaching in the buffer zone of the eastern border of the Madidi National Park; (B) the construction of a campground facility to serve as headquarters of park rangers, to be located 4 kilometers from Tumupasa, in the village of Sadiri; (C) the carrying out of workshops to strengthen coordination among the different stakeholders present in the Madidi National Park; (D) the preparation of an annual operational plans for the Madidi National Park and its buffer zone; and (E) the provision of technical assistance for the design of a financially sustainable mechanism for the management of the Madidi National Park, as well as a legal and policy framework for granting ecotourism concessions and promoting tourism.

21. To complement these activities, the Government will create and maintain operational a participatory working group for the sustainable development of the area benefiting from the project. It will be composed by representatives from affected municipalities, government entities and civil society organizations working in the area, as well as other concerned stakeholders.

B. Project Financing

1. Lending Instrument

22. **Lending Instrument.** The lending instrument is a Specific Investment Loan (SIL). This instrument was selected in agreement with the Ministry of Development Planning because of the definite nature of the investment and the familiarity of the GOB with the instrument.

2. Project Cost and Financing

23. Total project costs are estimated at US\$129.2 million inclusive of price and physical contingencies, of which the IDA Credit will finance US\$109.5 million. The GOB will finance US\$19.7 million (including land acquisition if required for resettlement and compensation of people affected by the project). The financing agreement includes arrangements for retroactive financing. Further details of the cost estimates are presented in Annex 2.

Estimated Project Costs by Component and Activity	IDA	GOB	Total (US\$M)
Component 1. Improving the San Buenaventura – Ixiamas National Road	103.5	14.7	118.2
Component 2. Improving the Rurrenabaque Airport	6.0		6.0
Component 3. Institutional Strengthening of ABC and AASANA, and other relevant entities		5.0	5.0
TOTAL PROJECT COST	109.5	19.7	129.2

IV. Implementation

A. Institutional and Implementation Arrangements

24. ABC, given its mandate of managing the primary road network will be the implementing agency for Component 1, Improving the San Buenaventura – Ixiamas National Road, as well as for Part (a)(i) and (b) of Component 3. AASANA will be the implementing agency for Component 2, Improving the Rurrenabaque Airport and Part (a)(ii) of Component 3.

25. Each agency, for its respective components, will be responsible for project administration, including financial management, procurement processes, contract management, monitoring and reporting, and for implementation of appropriate safeguards measures to mitigate potential negative impacts. The execution of works will be contracted to construction and/or supply companies with the necessary technical and financial capacity, and supervision of contractor activities will be contracted out to a supervision firms who in addition to technical supervision will be required to provide environmental, social safeguard and in the case of the road works specifically, HIV/AIDS monitoring. The project will provide institutional support to ABC and AASANA, targeted to capacity building and project implementation.

26. Further, as activities under Component 3 (b) entail coordination with beneficiary entities, *Viceministerio de Inversión Pública y Financiamiento Externo* (VIPFE) will have a coordinating role to ensure successful implementation of the activities.

27. **Fraud and Corruption.** Weak governance is a concern in the procurement and implementation of civil works. The Bolivian anticorruption law significantly increases the penalties for corrupt activities for public servants, purveyors and contractors. Additionally, specific financial management (FM) processes and procedures are included in order to guarantee that project funds are used efficiently for the project’s intended purposes.

28. More specifically, at the preparation of the Operational Risk Assessment Framework (ORAF), it was concluded that there were some governance weaknesses that may affect reaching the project objectives. Issues were identified in three critical aspects: (i) proper communications and information filing; (ii) low institutional capacity in contract management and monitoring; and (iii) ensuring transparency and empowerment. Inputs for improvements in these three critical areas and related mitigation actions and tools, are presented in the Good Governance and Anti-Corruption Action Plan (GAC) in Annex 3. The practices and processes introduced would help ABC and AASANA to gradually introduce improved governance practices to increase the capacity of the government to effectively manage its resources. In addition, these will also

contribute to properly supervise and inspect road construction quality with timely implementation within budget, implement sound policies for communications and information dissemination and establish a robust grievance mechanism.

29. **Proposed Mitigation Measures.** The Bank team conducted a technical, fiduciary and safeguards capacity review of ABC and AASANA. The review served as a basis for determining required support and capacity strengthening measures amongst the designated counterpart staff. Project design includes capacity building and implementation support that covers both executing agencies to provide them with the necessary tools and discipline to carry out their functions more effectively. Details of institutional strengthening measures are presented in Annex 3.

30. **Project Supervision.** The Bank team will exercise enhanced supervision of project implementation focused on fiduciary and safeguard aspects of the project. Cumulatively full and partial supervision missions will be performed quarterly in the first two years of implementation. ABC and AASANA will present counterpart teams with its own staff manned by the necessary technical specialists and specialists in financial management, procurement, social and environment. The agencies have core teams that were responsible for the preparation of the project and that will continue to be responsible for its implementation.

31. **Flow of Funds and Disbursement Arrangements.** On a preliminary basis and following the general practice of the current portfolio, the following disbursement methods may be used to withdraw funds from the credit: (i) reimbursement, (ii) advance, and (iii) direct payment. Taking into account the nature of the activities, as well as the size of the contracts, it is expected that direct payment will become the preferred option.

32. Under the advance method and to facilitate project implementation, Designated Accounts (DA) in US dollars would be opened and maintained by ABC and AASANA respectively, who would have direct access to funds advanced by the Bank to the DA. Funds deposited into the DA as advances follow Bank's disbursement policies and procedures as described in the Legal Agreement and Disbursement Letter.

33. In keeping with current arrangements established by the Viceministry of Treasury and Public Credit for the operation and use of a Single Treasury Account in US dollars (CUT-ME)¹, the DA will be opened and maintained as a separate *Libreta* within the Single Treasury Account in US dollars, which will also operate with a separate *Libreta* within the Single Treasury Account in *Bolivianos*, from which all payments and disbursements to beneficiaries' bank accounts will be processed. Specific processes and procedures for such operation are detailed in the project Operational Manual.

B. Results Monitoring and Evaluation

34. ABC and AASANA respectively will be responsible for monitoring the results indicators for the components as shown in Annex 1, including data collection on the indicators from project inception until project closing. This will be the basis for one mid-year and an annual project progress evaluation and reporting. ABC and AASANA have the responsibility to evaluate the

¹ Supreme Decree No. 29236 dated August 22, 2007

indicators at midterm review and at completion of implementation. For reporting purposes, the agencies will assess any changes in values of the monitoring indicators compared to the results obtained the preceding year. Comments, findings, and recommendations for improvements regarding the achievement of the target values for these indicators will be included in the annual progress reports and the mid-term review report.

35. A consultant, financed by the project, will support ABC and AASANA in the development of a results monitoring and evaluation (M&E) system that addresses the project goals and objectives and can be a standard employed in other project activities of the agencies. The consultant will design procedures for data collection, evaluation and reporting, and will conduct a training program for both agencies' staff responsible for M&E.

C. Sustainability

36. ABC ensures the transitability of existing road assets through several activities, including routine and periodic maintenance, preventive works, and maintaining a road inventory. In 2010, ABC allocated US\$82 million for road maintenance, US\$33 million of which for periodic maintenance and road rehabilitation, and US\$49 million for routine maintenance. This level of expenditures, which is considered high in light of a cost of routine maintenance per kilometer per year that exceeds US\$3,000 including paved, gravel, and dirt roads, and which surpasses comparable costs in the region, is an indication of strong commitment to maintain the roads².

37. The rehabilitation and expansion of Rurrenabaque Airport started prior to Bank involvement. Financed by the Beni prefecture, the runway has been upgraded to provide an asphalt surface compliant with International Civil Aviation Organization (ICAO) standards; this important safety aspect will increase the attractiveness of air transportation for travel to Rurrenabaque. Following the principle of value-for-money, the user fees for the new facilities can be raised so as to increase revenues and gradually reduce dependency on subsidies.

V. Key Risks

38. **Implementation Risks.** The overall project risk is rated High. All potential risks are summarized in the Operational Risk Assessment Framework (ORAF) (see Annex 4). Key risks include project management, administration, human resource and, safeguards and fiduciary management capacity of the project's implementing agencies. The project design attempts to counter this by including capacity building and implementation support for both executing agencies by providing them with the necessary tools to carry out their functions and responsibilities effectively.

39. The improvement of the Buenaventura-Ixiamas road has the risk of facilitating transportation of illegally logged wood in the project area, but project design includes extensive mitigating measures, including checkpoints to be managed by ABT for ascertaining legitimate origin as well as specific support to SERNAP and ABT in enhancing their capacity to manage this type of risks. Road improvements could also increase current pressures on the Madidi Park

² This high per/km expenditure is partly explained by the country's challenging topographical, geological and climate conditions.

caused by increased tourism and expansion of the agricultural frontier, for which the adoption of improper agricultural practices, could lead negative impacts on natural ecosystems or the displacement of native (Tacana) communities. On the other hand, however, the proposed project will likely phase out ideas of a new road traversing through the Madidi National Park from La Paz as it will cease to be economical, and thus the project will actually relieve otherwise realized pressure on this nature reserve³. Mitigation action plan for negative indirect environmental effects of the road has been agreed upon with GOB. A Social Assessment has been prepared, an Indigenous Peoples Development Plan drafted, and a Resettlement Action Plan has been completed, all with extensive consultations with the communities and international NGOs, both of which will help monitor the application of the safeguards instruments prepared under the project.

VI. Appraisal Summary

A. Economic and Financial Analysis

40. **San Buenaventura- Ixiamas National Road.** The economic evaluation covered two road segments: San Buenaventura – Tumupasa (52.85 km) and Tumupasa – Ixiamas (60.80 km). The cost benefit analysis is based on actual traffic volumes and forecasts, vehicle operating costs (VOC) and travel time savings for users. Traffic forecast is comprised by normal traffic, traffic generated by improved road conditions, and by traffic originated from the development of a major agro-industrial complex for the production of sugar, molasses, and alcohol, and private agricultural activities. This last category is of significance to the economic feasibility analysis because it represents 80% of total traffic within 10 years (the period of analysis is 20 years).

41. The principal measured benefits of the project are savings in passenger and freight VOC and time savings as a result of reduced traveling time for passenger cars, buses, and trucks by using the Highway Design and Management Model (HDM-4). The economic analysis yielded an estimated overall Economic Internal Rate of Return (EIRR) of 15.5% (19.9% for the San Buenaventura - Tumupasa and 12.9% for the Tumupasa - Ixiamas segments) and a Net Present Value (NPV)⁴ of US\$25.7 million.

42. A sensitivity analysis conducted for different traffic scenarios for the complete road shows that the project tolerates a reduction of up to 25% in both the traffic originated by the agro-industrial complex and that originated by agricultural development (under such scenario the IRR is 13.2% for the overall road; 15.2% for San Buenaventura - Tumupasa and 10.9% for Tumupasa - Ixiamas). Moreover, the San Buenaventura – Tumupasa section can even tolerate decreases in agro-industrial development and agricultural development traffic of up to 50% each. Therefore, the economic analysis of the road is acceptable to regional comparators.

³ The government's envisioned road, which is not part of this project, would cross directly through Madidi National Park from Apolo on the southern edge of Madidi National Park to northwest of the park.

⁴ NPV was calculated with a discount rate of 12.6%.

43. **Rurrenabaque Airport.** The overall investment for the airport is estimated at US\$6.0 million, of which US\$2.08 million correspond to investment related to safety and security⁵. Economic and financial analyses took in consideration only the costs associated with airport improvements (safety and security investments should not be subject to economic evaluations).⁶

44. For the **economic analysis**, only the benefit associated to tourism was quantified as these are the only one that can be estimated with a reasonable level of certainty. Since no other benefits were taken into account, the results may be considered to be conservative. For the **financial analysis**, taking into account the size of the airport, the amount of the investment and the large size of externalities which cannot be quantified in an income stream, it is not surprising that the NPV is negative. The airport economic analyses are acceptable, given industry practices.

ECONOMIC ANALYSIS	
Period of Analysis: 30 years	
NPV 5%	US\$7.7 million
NPV 7%	US\$5.6 million
NPV 10%	US\$3.4 million
EIRR: 26%	

FINANCIAL ANALYSIS	
Period of Analysis: 30 years	
NPV 5%	-US\$2.3 million
NPV 7%	-US\$2.7 million
NPV 10%	-US\$2.9 million

B. Technical

45. **San Buenaventura – Ixiamas National Road.** The San Buenaventura-Ixiamas National Road is a section of the F-16 National Route that connects the principal cities in the north of the prefecture of La Paz and international routes. The project will finance the improvement and pavement construction of the road and the construction of approximately 21 bridges. The topography of the terrain where the road is located is slightly rolling; the average width of the existing surface is nine meters; and the riding surface is of natural unclassified materials. The average speed of vehicles is 25 km per hour due to irregularities in the surface and the lack of drainage structures (the road crosses 33 water streams, only 12 of which have a bridge). The proposed pavement structure type is asphalt concrete and granular base and sub-base.

46. If the adopted hypothesis for the traffic originated from agricultural and agro-industrial developments is achieved, the HDM-4 results indicate that the asphalt concrete alternative would not require other interventions before the sixth year after the road is in full operation, and that it would take up to ten years for the traffic originated to level itself as regular traffic.

47. **Rurrenabaque Airport.** Rurrenabaque airport is located at about 2.5 km northeast of the city center of the town of Rurrenabaque at an altitude of 202 m above mean sea level. In its original configuration the airport comprised of two intersecting runways, a small passenger terminal constructed in 1989 and an access road off the main road to Rurrenabaque. Original runway was 1,300 m in length, new runway is 1,940 m.

⁵ Fully related to safety/security are costs for security/surveillance equipment and civil works and costs for the rescue and firefighting services. Other investments, such as the control tower, mobile aeronautical services, runway lighting and meteorological equipment are only partially related to safety and security (they also serve operations).

⁶ Moreover, Cost/Benefit analysis is generally not done for airport investments of less than US\$5.0 million (this is the standard practice of agencies such as the US Federal Aviation Administration, FAA).

48. Operations on this runway system are subject to constraints. Due to the length of the original runway and its gravel type surface, only turboprop aircraft were able to serve the airport. In addition, due to runway surface conditions (slippery when wet) and the lack of an instrument landing system, an estimated 35% of annual flights have to be cancelled on the runway system. Phase I of the airport works, upgrading of the longer runway, have already been carried out with financing by Beni prefecture and AASANA is erecting a fence around the perimeter. From an operational point of view, following Bank intervention, the new airport will: (i) provide a higher degree of safety and security due to improved usability under wet conditions of the surface-treated as opposed to the previous gravel runway and new firefighting equipment, and terminal security equipment; (ii) be able to accommodate larger, jet-powered aircraft that require a paved runway; and (iii) generally provide larger and more modern passenger processing facilities.

C. Financial Management

49. A financial management capacity assessment was carried out to determine the adequacy of ABC's and AASANA's financial management arrangements to support project implementation under its respective components.

50. Project design is straightforward, with clearly defined activities, and few contracts although large in value. Therefore, it does not require complex FM arrangements. Project implementation will rely widely on existing arrangements, both in ABC as well as AASANA. While ABC has developed experience in external financed projects and is currently implementing a WB-financed project (Road Rehabilitation and Maintenance Project, P068968/Cr. 3630-BO), FM performance is considered moderately satisfactory and there are still some shortcomings mainly related to contract management that need to be addressed. On its side, AASANA has limited experience with external-financed projects. Thus, both entities have worked on the design of key procedures to strengthen their existing arrangements in order to make sure they fully respond to project needs allowing timely, agile and smooth project implementation. Those measures mainly include: i) revised and streamlined processes and procedures, including internal controls, focusing on contract management, approval of progress certificates and payment processing; ii) completion and implementation of new information systems (for ABC) that allows compiling the information related to programming and budget execution, to provide ABC with a single and reliable source of information for monitoring purposes (expected by end March, 2011); and iii) adjustments to the format, content and specific arrangements for preparation of interim financial reports. These arrangements have been reviewed by the Bank and will be reflected in the Operational Manual.

51. The project's FM inherent risk is rated substantial; similarly the FM control risk is rated substantial too, based on the lack of experience of AASANA and the identified shortcomings which affect/limit ABC's capacity under the current project. While specific arrangements to overcome those shortcomings have been discussed and designed, effective implementation and operation will highly depend on the timely selection and contracting of key positions agreed to operationalize the proposed arrangements. The overall FM risk is rated substantial.

D. Procurement

52. As part of the preparation process of the project, an in-depth assessment of the procurement capacity of the two implementing agencies was carried out by the team, and a detailed action plan was prepared to address identified risks. Procurement risk is a result of: (a) the risky country procurement environment, mainly due to the weaknesses of control institutions, need for uniform ethics standards and established procedures to address wrongdoing, and lack of competitiveness in the market; and (b) in the case of AASANA, inexperience with Bank financed projects. The corrective measures that have been agreed are: (i) a project operational manual, including procurement and contracting procedures⁷; (ii) inclusion in the Financial Agreement of Special Procurement Provisions and inclusion of additional provisions related to implementation; and, (iii) close monitoring by the Bank (see Annex 3).

E. Social

53. The San Buenaventura-Ixiamas road and the Rurrenabaque Airport will promote socioeconomic development in the region neighboring the road and in the area serviced by the airport. Rural residents along the road will benefit from improved access to services and markets. Freight transporters will benefit from reduced travel times and repair costs. Users of public transportation services will benefit from improved bus services. Both the road and the airport will create job opportunities for local residents during the construction period. After the road improvements are completed, local residents are likely to benefit from the employment opportunities that will be created by the development of the sugar industry and other agribusinesses. Moreover, the road, combined with the airport is likely to result in increased tourism, which will also increase economic opportunities for local communities. The road could have negative impacts from land acquisition and pressure on agricultural lands. The pertinent safeguards instruments have been elaborated to address these impacts.

54. **Indigenous Peoples.** ABC prepared a Social Assessment (SA) and an Indigenous Peoples Development Plan (IPP)⁸ for the road works in compliance with Indigenous Peoples OP 4.10. The IPP has separate budget of US\$0.7 million for the components agreed upon with the indigenous organizations. The IPP, which was prepared through a series of consultations with leaders, elders and traditional authorities of the TCO Tacana I, indicates that the minority ethnic groups located in the project area are Tacanas and Esse Ejjas. The IPP provides information about the ethno-historic, cultural, social and organizational characteristics of the Tacana people as well as the Esse Ejja people. The Esse Ejja is deemed more vulnerable because their economic activities are fundamentally based around hunting, fishing and the gathering of forest fruits. They don't have their own territory and they are semi-nomadic.

55. The results of the consultation process show different perceptions of the benefits and negative impacts of the road depending on the participants' occupation, gender or age. The majority recognize the benefits: better transport, ease of communication, access to markets,

⁷ Adhering to the Bank's "Guidelines: Procurement under IBRD Loans and IDA Credits" dated May 2004, and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004, updated in October 2006 and May 2010.

⁸ These were disclosed locally on ABC website on March 1, 2011 and on the Bank's InfoShop on March 1, 2011.

increased incomes and improved production. It is in the perceptions of the negative impacts (accidents, the pressure from immigration, insecurity, deforestation, negative effects on wildlife and water contamination) that the differences between the groups emerge. Generally, young people of both indigenous and non-indigenous descent regard the road in a positive light. Women express concerns over the impact of the road on their culture and ethnic identity, conflicts with new migrants and issues of highway safety. The dimension of gender has been included in the social assessment and the IPP.

56. The base for the IPP activities is the participatory “Strategy of Sustainable Development of the TCO-Tacana in the management of natural resources, 2001-2005”, which was prepared by the Counsel for the Indigenous Tacana Population (CIPTA), with the support of the Wildlife Conservation Society (WCS/Bolivia). The IPP includes activities to address (i) the need for increased management and protection of the Tacana TCO in order to prevent invasions by new migrants; (ii) the development of productive projects based on sustainability of the natural resources used; and (iii) communication process and publications to strengthening the Tacana ethnic identity. The IPP has a defined budget and lays out a clear set of activities and responsibilities. In terms of a timeline, CIPTA will incorporate each activity into their annual plans. Due to Esse Ejja socio cultural characteristics and their high vulnerability, the IPP provides resources to support the elaboration of a specific strategy in order to plan policy actions, and rescue and protection activities. The Eyiyoquibo community (part of the Esse Ejja people) were also involved in the consultation process (see Annex 3).

57. **Involuntary Resettlement.** A Resettlement and Compensation Plan (*Plan de Reasentamiento e Indemnizaciones de Poblaciones Afectadas - PRIPA*) was prepared in 2007-2008 to address the adverse impacts of Right of Way (ROW) acquisition for the San Buenaventura-Ixiamas road⁹. At the request of the Bank, ABC produced an updated PRIPA¹⁰ which takes into account: (i) changes in the legal status of land adjacent to the road as a result of the implementation of a titling program by the National Agrarian Reform Institute (INRA); (ii) construction of new buildings since 2008; (iii) changes in the width of the ROW to be acquired for the project; and (iv) requirements of the Bank Policy on Involuntary Resettlement (OP 4.12).

58. The original PRIPA was based on the assumption that the width of the ROW in urban and rural areas was going to be 100 m. During project preparation the Bank was informed that: (i) the INRA had titled properties assuming that the road’s ROW was only 40 m and (ii) the municipalities of San Buenaventura and Ixiamas had developed their urban plans assuming that the road’s ROW was 20 m. Based on these findings, the Bank recommended ABC to adapt the ROW accordingly. ABC agreed with this recommendation, which reduces the adverse impacts of the road project on the local population significantly.

59. The original PRIPA predicted that the road would affect 217 dwellings and other structures built within the 100 m ROW. However, many new structures have been built since 2008 and, therefore, the figures would have been significantly higher today. According to the updated PRIPA the road will only affect 70 structures: 40 dwellings, 18 commercial structures (mostly kiosks and small stores) and 11 additional structures (entrances, walls, sheds, etc.). In the

⁹ Disclosed on ABC’s website on December 23, 2010 and on the Bank’s InfoShop on January 5, 2011.

¹⁰ Disclosed on ABC’s website on February 25, 2011 and on the Bank’s InfoShop on February 28, 2011.

70 cases where dwellings and other structures are affected, ABC will provide replacement dwellings of better quality and value. In the 40 cases where dwellings are affected, it will be possible to rebuild the dwelling on the residual land of the lot affected.

60. In rural areas, the lots titled by INRA have limits that coincide with the boundary of a 40 m ROW. Therefore, the project will not require the purchase of land in rural areas, except in cases where it is necessary to make minor adjustments in the frontal boundaries of the land due to errors of measurement. However, the PRIPA has identified 223 cases in which the project will affect crops and trees within the 40 m ROW and outside the area titled by INRA.

61. The updated PRIPA has procedures for relocation, compensation, and rehabilitation of affected persons and communities. It covers the entire length of the road, except for a 3 km section, which will be built to avoid adverse impacts on the indigenous Tacana town of Tumupasa. ABC, at the request of the Bank, is modifying the original design of the bypass for technical reasons and to avoid impacts on structures built after the completion of the original PRIPA. Once redesigned, the impact of land acquisition for the bypass will be updated by ABC.

62. In the case of Rurrenabaque Airport, the construction of facilities that will be financed as part of this project do not require land acquisition; it will take place on land that is already in the possession of the AASANA. AASANA is currently fencing the 300 m safety zone of the new runway, which is not financed by the Bank. All the land within the 300 m safety zone of the new runway is also in possession of AASANA (it was expropriated by the Municipality of Rurrenabaque between 1984 and 1986; no resettlement took place within the two years prior to the runway construction). The safety zone meets international standards for the type of aircraft that is currently operating in the Rurrenabaque Airport. However, in the future it may be necessary to expand the safety zone to 400 m to permit the operation of bigger planes. This expansion would require the partial taking of 11 properties. AASANA has prepared an Abbreviated Resettlement Plan (“*Plan de Compensación a Personas Afectadas por el Proyecto de Mejoramiento del Aeropuerto de Rurrenabaque*”)¹¹, which defines the procedures to compensate the owners of the 11 properties, in the event that the expansion occurs, as well as the owners of a sawmill that encroaches the safety zone of the old runway. The Abbreviated Resettlement Plan also includes procedures to address grievances related to land acquisition.

F. Environment

63. This project is classified as Category B, which is the appropriate classification for projects whose potential adverse environmental impacts on human populations or environmentally important areas are site-specific, reversible, and can be readily mitigated. The environmental safeguards policies Environmental Assessment (OP 4.01), Natural Habitats (OP 4.04), Physical Cultural Resources (OP 4.11), and Forests (OP 4.36) have been activated.

64. Potential adverse environmental impacts include: (i) change in the health and quality of forests (deforestation and forest degradation); (ii) biodiversity loss; (iii) illegal logging; (iv) degradation or conversion of natural habitats, including disruption of hydrological dynamics; and (v) damage or destruction of physical cultural resources. Three environmental assessment reports

¹¹ Disclosed on AASANA website on February 25, 2011 and on the Bank’s InfoShop on March 1, 2011.

have been prepared by the client to fully meet the aforementioned environmental safeguards: (i) *Estudio de Factibilidad Técnico, Económica, Impacto Ambiental y Diseño Final de la Carretera San Buenaventura-Ixiamas* (“Technical and Economic Feasibility, Environmental Impact and Final Design Study for the San Buenaventura-Ixiamas Road”)¹² that includes an Environmental Impact Assessment (EIA) report and its constituent Environmental Mitigation Plan (EMP) for the road, completed in 2009 and substantially and satisfactorily updated¹³; (ii) *Mitigación de Impactos Ambientales Potenciales, principalmente indirectos, Asociados al Proyecto de Mejoramiento del Camino San Buenaventura – Ixiamas* (“Mitigation of Potential Environmental Impacts, mainly indirect, Associated to the Rehabilitation of the San Buenaventura-Ixiamas Road”)¹⁴; and (iii) *Estudio Ambiental para el Mejoramiento del Aeropuerto de Rurrenabaque* (“Environmental Assessment for Improvements in the Rurrenabaque Airport”)¹⁵.

65. As part of the measures to mitigate indirect environmental impacts of the road, key institutions responsible for forests and protected areas management such as ABT and SERNAP, among others will be strengthened. The following activities will be carried out:

- **ABT:** (i) construction of two checkpoints to prevent logging in San Buenaventura and Ixiamas; (ii) the provision of personnel and vehicles and equipment for these checkpoints; (iii) analytical work on illegal logging in the project’s area of influence and management and oversight regime for forest concessions and activities; (iv) acquisition of high resolution satellite images to trace changes in forest cover; and (v) technical workshops for colonists, indigenous populations and municipal authorities on topics related to sustainable forest management.
- **SERNAP:** (i) provision of personnel and vehicles and equipment; (ii) small infrastructure; (iii) workshops to strengthen capacities of and coordination among stakeholders of Madidi National Park (NP); (iv) preparation of an Annual Operational Plan for the Madidi NP and its buffer zone adjacent to the road; and (v) design of a financially sustainable mechanism for the park management and a framework for granting ecotourism concessions and promoting tourism products.
- **ABC:** (i) provision of personnel to support project implementation on safeguard issues.
- **Ministry of Development Planning:** (i) support for the creation and operation of a participatory working group for sustainable development; and (ii) support for undertaking a Strategic Environmental Assessment for the development (investment) programs in the project’s area.

66. Project preparation included a number of meetings with a broad range of stakeholders in which environmental issues (potential environmental impacts and benefits) were discussed (see Annex 3). The last of these meetings was held with conservation NGOs in La Paz on February 4, 2011. Consultations with a range of stakeholder will continue during project implementation to exchange views on the applications of the actions listed above.

¹² Disclosed on ABC’s website on December 23, 2010 and on the Bank’s Infoshop on January 5, 2011.

¹³ The update was disclosed on ABC’s website and on Bank’s InfoShop on March 1, 2011.

¹⁴ Disclosed on ABC’s website and on Bank’s InfoShop on March 1, 2011.

¹⁵ Disclosed on AASANA’s website on January 13, 2011 and on the Bank’s Infoshop on February 16, 2011.

Annex 1: Results Framework and Monitoring
BOLIVIA: National Roads and Airport Infrastructure Project
Results Framework

Project Development Objective (PDO): To improve the year-round transitivity of the San Buenaventura – Ixiamas national road and improve the safety, security and operational reliability of the Rurrenabaque Airport.

PDO Level Results Indicators*	Core	Unit of Measure	Base-Line	Cumulative Target Values**					Freq.	Data Source and Method	Charged with Data Collection	Descript. (indicator definition etc.)
				YR 1	YR 2	YR3	YR 4	YR5				
Indicator One: Reduce the transport costs to the San Buenaventura to Ixiamas road users, including vehicle operating costs and monetary value of travel time.	<input type="checkbox"/>	US\$ cents /veh./km	<u>Car</u> 0.71 <u>Pick-up</u> 1.29 <u>Bus</u> 4.41 <u>Trailer truck</u> 2.65 <u>Large truck</u> 2.05 <u>Medium truck</u> 1.00	-	-	-	-	-	Year 2, 3 and 5	Travel times surveys along the SBV-IXI road	ABC	Travel times by vehicle class along the SBV-IXI national road
Indicator Two: Increase the number of inbound and outbound flights actually operated at the Rurrenabaque Airport as per the published schedule, in percentage of the total scheduled flights.	<input type="checkbox"/>	% of the total schdled. flights that take place	65	-	75	90	90	90	Annual	Survey with Airlines operating in the Airport	AASANA	Level of confidence that a flight will take place as per schedule

INTERMEDIATE RESULTS												
Intermediate Result (Component One): Improving the San Buenaventura – Iximas National Road												
<i>Intermediate Result indicator One:</i> Average cruise speed for a vehicles from SBV-IXI	<input type="checkbox"/>	Km/hr	<u>Car</u> 35 <u>Pick-up</u> 35 <u>Bus</u> 25 <u>Trailer truck</u> 20 <u>Large truck</u> 20 <u>Medium truck</u> 20	-	-	-	<u>Car</u> 85 <u>Pick-up</u> 85 <u>Bus</u> 65 <u>Trailer truck</u> 70 <u>Large truck</u> 70 <u>Medium truck</u> 70	<u>Car</u> 85 <u>Pick-up</u> 85 <u>Bus</u> 65 <u>Trailer truck</u> 70 <u>Large truck</u> 70 <u>Medium truck</u> 70	Annual	Speed Surveys	ABC	Average cruise speed on the project road
<i>Intermediate Result indicator Two:</i> Roads rehabilitated (rural and non-rural)	<input checked="" type="checkbox"/>	Km	0	-	20	60	80	113.6	Annually	Project reports	ABC	Construction
Intermediate Result (Component Two): Improving the Rurrenabaque Airport												
<i>Intermediate Result indicator One:</i> Passenger terminal, control tower, taxiway and apron completed	<input type="checkbox"/>	Construction	Does not exist	-	-	-	Completed	Completed	Semi-annually	Supervision report	AASANA	Buildings constructed under the project by square meter
Intermediate Result (Component Three): Institutional Strengthening of ABC and AASANA, and other relevant entities												
<i>Intermediate Result indicator One:</i> ABC has and operates under a unique and reliable source of information	<input type="checkbox"/>	Unique information system	Several, not harmonized	-	A reliable, harmonized system of information in operation	A reliable, harmonized system of information in operation	A reliable, harmonized system of information in operation	A reliable, harmonized system of information in operation	Semi-annually	WB FM assessment	WB FM Specialist	ABC's improved project admin.

Annex 2: Detailed Project Description
BOLIVIA: National Roads and Airport Infrastructure Project

1. **Project Development Objective (PDO)**: To improve the year-round transitivity of the San Buenaventura – Ixiamas national road and improve the safety, security and operational reliability of the Rurrenabaque Airport.
2. ***Component 1. Improving the San Buenaventura – Ixiamas National Road (US\$118.2 million – including price and physical contingencies)***. This component will finance civil works for the improvement of the San Buenaventura – Ixiamas road, along National Route F-16 and associated supervision consultancy. The improvement comprises an asphalt concrete pavement, rehabilitation of existing drainage and other road protection structures and the construction of approximately 21 bridges. The works will be bid in one package with two lots. In recent years, large packages of road works have successfully been bid out in Bolivia, for instance the upgrade of the La Paz – Oruro road. The supervision will be bid for the whole road. This component includes the support for the carrying out of the necessary audits under the project.
3. **Link with PDO**. This component aims directly to improve the year-round transitivity of the San Buenaventura – Ixiamas national road, which aim is supported by component 3.
4. The San Buenaventura - Ixiamas road segment belongs to the PRN, which connects the main departmental capitals and international highways. The project envisages the improvement and paving of the road section San Buenaventura – Ixiamas (Northwest orientation), corresponding to PRN road F-16 which links to the region located north of the prefecture of La Paz. The San Buenaventura - Ixiamas road segment is in the Iturralde Province, within the prefecture of La Paz and will be part of the PRN that will join the city of La Paz with the cities of Cobija and Trinidad, the capitals of Pando and Beni prefectures respectively and onwards to Brasil. It will also help link cities such as Rurrenabaque, Reyes, Santa Rosa, Yata, Puerto Cabinas, Tomichuco and Riberalta. It is estimated that these road improvements will promote trade in the region and generally facilitate the economic development of the project's area of influence and beyond, thus meeting the demand originating mainly from the expansion of agricultural production (bananas, mangos, and pineapples are important products) and from the development and expansion of the San Buenaventura agro-industrial complex (producing alcohol, sugar, molasses, etc.).
5. The topography is gently undulating and to a lesser extent corrugated mountain. The surface is unclassified material extracted from quarries in the area leading to significant irregularities and poor quality and comfort in transportation. There are also several points that are potentially traffic disrupting factors, such as the numerous rivers and streams that cross the road. The project identifies 33 intersections, only 12 of which have bridges; the project thus contemplates the construction of culverts and of approximately 21 bridges.
6. Given the characteristics of the road just identified, travel speeds are very low in both sections (San Buenaventura – Tumupasa; Tumupasa – Ixiamas), estimated at 35 Km/h for light vehicles (cars and trucks) and at around 25 Km/h for buses and trucks. Project intervention

should improve average speeds to around 85 Km/h for the entire length (113.6km). The speed distribution is as follows: 72% of the length of the road at speeds of between 90 to 100 Km/h, 25% of the length at speeds of between 70 to 80 Km/h, and 3% with a speed of 60 Km/h. That said, the designs will incorporate necessary safety measures to minimize accidents, including signals, reduced speed limits in areas with higher population densities and more pedestrians, and non-motorized transport.

7. Regarding traffic levels, on 2007, Average Daily Traffic (ADT) was 77 between San Buenaventura and Tumupasa; and 49 between Tumupasa and Ixiamas. Forecasts for 2010 were 131 for San Buenaventura – Tumupasa and 78 for Tumupasa-Ixiamas.

8. On the whole, the alignment of the new technical design follows the alignment of the current road, including its initial 2 km which traverse the urban area of San Buenaventura. Significantly, between Km 52 and Km 55 the road is diverted to bypass the town of Tumupasa. The project will include a platform to correct irregularities in the riding surface (altimetry). The proposed pavement structure type is an asphalt concrete pavement. The average width of the platform is 9 meters.

9. An economical analysis was done for this component¹⁶. A summary is presented in the main text, and the complete analysis is on file.

10. ***Component 2. Improving the Rurrenabaque Airport (US\$6.0 million, including price and physical contingencies)***. This component will finance the construction of one new taxiway, apron, control tower, an operations building, a rescue and fire fighting building, of an access road and a passenger terminal, the procurement and installation of aviation control, rescue equipment and firefighting equipment and associated supervision consultancy for Rurrenabaque airport. This component includes the support for the carrying out of the necessary audits under the project.

11. **Link with PDO.** This component aims directly to improve the efficiency, security and operational service of the Rurrenabaque Airport, which aim is supported by component 3.

12. Rurrenabaque airport (RBQ) is located at about 2.5 km northeast of the city center of the town of Rurrenabaque and at an altitude of 202 m above mean sea level. In its original configuration (until mid-May 2010) the airport comprised two intersecting runways (orientation: 13/31 and 18/36), a small passenger terminal constructed in 1989, and an access road off the main road to Rurrenabaque. Runway 18/36 was 1,300 m in length; runway 13/31 was 1,940 m.

13. Operations on this runway system were subject to constraints. Landings and takeoffs on runway 18/36 were only possible in one direction due to a hill immediately beyond the southern end of runway 18. The obstacle situation is significantly better for runway 13/31 where mountains cross the extended runway centerline several kilometers beyond the end of runway 13. Due to the length of the runways and their gravel type surface, only turboprop aircraft were able

¹⁶ “Análisis de Sensibilidad de la Factibilidad Económica de la Carretera San Buenaventura – Ixiamas”, Asociación CPS-Belmonte, April 2010.

to serve RBQ. The airline Amazonas operated the 20-seat Fairchild Metro, TAM¹⁷ the 40-seat Fokker 27 aircraft.

14. Due to runway surface conditions (slippery when wet) and the lack of an instrument landing system (aggravated by frequent low clouds, particularly during the rainy season), an estimated 35% of annual flights had to be cancelled on the runway system prior to mid-May 2010¹⁸.

15. The reconstruction of the airport has been laid out in a Masterplan prepared in 2004. Part of this project has already been carried out. Financed through the prefecture and the municipality of Rurrenabaque, runway 13/31 has been upgraded. This comprised the rebuilding of the runway's base and sub-base and the application of a triple surface treatment to the 30 m wide runway and of a double treatment to the 3.5 m wide shoulders. The new length of the runway is 1,500 m, sufficient to handle Amazonas' new Do328 Jet aircraft. The measure also comprises the grading of a 150 m wide runway safety strip, the installation of a drainage in the safety strip, the purchase of additional land northeast of the runway (to the distance of 150 m from the runway center line) and the construction of a partial fence.

16. The Bank-financed proportion of the entire airport upgrading project (Phase II) will cover the procurement of:

- An 18 m wide taxiway about 600 m in length for code C aircraft which will connect runway 13/31 with the terminal area;
- A 90 m by 90 m aircraft apron;
- A passenger terminal of about 900 m² floor space, sized to handle those aircraft which can operate on the runway;
- A control tower;
- An airport access road;
- An operations building; and
- A crash, fire and rescue building.

17. Furthermore, project financing will cover communication and flight/weather information equipment (tower equipment, VHF and HF transmitters, AWOS Cat. II, signal pistol) for the control tower, fire and rescue vehicles to meet the requirements of the International Civil Aviation Organization (ICAO) fire category 5, gear and tools for the fire fighters, an emergency generator for electrical energy, X-ray machines and metal detectors for terminal security, a runway lighting system, and a PAPI visual approach system for the main landing direction.

18. An economical analysis was done for this component¹⁹. A summary is presented in the main text, and the complete analysis is on file.

¹⁷ TAM - *Transportes Aéreos Militares*

¹⁸ Prior to the rehabilitation of the runway (completed in July 2010), about 35% of the scheduled flights had to be canceled due to critical runway conditions. The high probability of flight cancelation must be considered to have been a major obstacle to attracting particularly high-yield tourists with time constraints. Likely, many of these tourists will for this reason have foregone a trip to Rurrenabaque. For this group the 12-hour road trip between La Paz and Rurrenabaque may not be considered a viable alternative to flying.

¹⁹ "Evaluación Privada y Socioeconómica Nuevo Aeropuerto de Rurrenabaque", August 2004 (AASANA).

19. **Component 3. Institutional Strengthening of ABC and AASANA, and other relevant entities (US\$5.0 million).** This component has two main activities aimed at strengthening not only AASANA and ABC capabilities, but also other relevant entities, such as the Authority on Forests and Land (ABT), the National Service for Protected Areas (SERNAP), and VIAS BOLIVIA. Main activities are the following:

(a) Strengthening the capacity of: (i) ABC and (ii) AASANA, to perform their functions effectively and efficiently, through the provision of technical assistance (including audits), training, and incremental operational costs required for Project administration and monitoring, and to implement the Good Governance and Anti-Corruption Action Plan.

(b) (i) Strengthening ABT's monitoring capacity, through: (A) the construction of two checkpoints to prevent illegal logging and oversight productive and tourism activities in the areas north of *Ixiama* and *San Buenaventura*, integrated with axleload controls administered by VIAS BOLIVIA; (B) the provision of vehicles, computers and, communication equipment, for the carrying out of inspections in the different areas under ABT's jurisdiction; (C) the provision of technical assistance for the carrying out of studies aimed at: (1) assessing illegal logging in the area benefiting from the Project as well as providing recommendations for diminishing it; and (2) reviewing and updating existing policy on forest concession and its implementation instruments (i.e. management plans and financial capacity assessment); (D) the acquisition of high resolution satellite images during Project implementation, for the purposes of tracing changes in forest cover in the area benefiting from the Project; and (E) the carrying out of technical workshops for intercultural communities, indigenous population and municipal authorities on various topics related to sustainable forest management.

(ii) Strengthening SERNAP's monitoring capacity, through: (A) the provision of personnel, equipment and vehicles for the prevention of illegal logging and poaching in the buffer zone of the eastern border of the *Madidi* National Park; (B) the construction of a campground facility to serve as headquarters of park rangers, to be located 4 kilometers from *Tumupasa*, in the village of *Sadiri*; (C) the carrying out of workshops to strengthen coordination among the different stakeholders present in the *Madidi* National Park; (D) the preparation of an annual operational plans for the *Madidi* National Park and its buffer zone; and (E) the provision of technical assistance for the design of a financially sustainable mechanism for the management of the *Madidi* National Park, as well as a legal and policy framework for granting ecotourism concessions and promoting tourism.

20. To complement these activities, the Government will create and maintain operational a participatory working group for the sustainable development of the area economically benefiting from the project. Said working group may be composed by representatives from affected municipalities, government entities and civil society organizations working in the area, as well as other concerned stakeholders.

21. Regarding specifically Component 3 (b), it is important to note that the project will support capacity strengthening of SERNAP and ABT, entities that are collectively responsible for guaranteeing compliance by ABC with agreed-upon safeguard measures (protection of

natural parks, monitoring of logging, monitoring environmental management of productive activities, oversight of tourism activities, etc.). As the road construction is envisioned as major civil work contracts, the project will also support mitigation of the transmission of HIV/AIDS by assisting ABC in increasing its capacity for monitoring HIV/AIDS awareness campaigns, executed by the contractors.

22. ABT will increase its monitoring capacity through the following: i) deployment of 2 checkpoints, one in San Buenaventura to prevent illegal actions within the Madidi National Park, and one in Ixiamas with adequate communication and safety facilities; ii) enhancing of operational capacity and support for offices, one in San Buenaventura and one in Ixiamas, with suitable computer and communication equipment (to permit communication with any persons who may present grievances); deployment of vehicles to effect inspections and establishment of security mechanisms; and iii) providing de necessary personnel for envisaged activities: 2 persons in charge of each of the checkpoints (for day and night shifts), 3 people for field inspections; 2 people to receive and process complaints. The aim of these actions is to facilitate the task of controlling illegal logging and to enable civil society, through communication campaigns, to safely and effectively participate in the grievance mechanism. Finally, this project will also support road management by installing suitable equipment for weight control in the same checkpoints. In order to make this initiative sustainable, VIAS BOLIVIA will also participate in this component (it is its responsibility to undertake weigh control in the PRN).

23. SERNAP's monitoring and oversight capacity will also be strengthened by the project. Regarding the need to strengthen SERNAP's monitoring and oversight capacity in the area that abuts and neighbors the road, efforts should be directed to supply the agency with a minimum of 3 additional park rangers (*guardaparques*). SERNAP should also have satisfactory operational capacity and motorized mobility (e.g. new motorcycles, 1 pick-up truck), so as to promptly respond to any grievance. Furthermore, the entity should improve its communication systems, not only amongst its park rangers, but also with other partners that have a stake in the monitoring and oversight of the protected area, such as security forces (police), tourism companies, and indigenous populations. A request for complementary funding from the Global Environmental Facility (GEF) will be processed to support biodiversity conservation and sustainable use mainstreaming in productive landscapes, including the financial and economic sustainability of the Madidi National Park management.

24. **Link with PDO.** Component 3 aims to support Components 1 and 2, by providing ABC and AASANA, as well as other relevant agencies such as SERNAP, ABT, and VIAS BOLIVIA with the tools needed to perform their required functions.

Detailed Project Cost Estimates

Estimated Project Costs by Component and Activity	IDA	GOB	Total (US\$M)
Component 1. Improving San Buenaventura – Ixiamas National Road			
	103.5	14.7	118.2
A. Improvement of the road, including the pavement structure for SB-Tumupasa and Tumupasa- Ixiamas, and approximately 20 bridges (includes support services for supervision)			87.9
B. Tumupasa bypass (including 1 bridge)			1.6
C. Access to Tumupasa			1.3
D. Environmental mitigation			1.6
E. Involuntary Resettlement (physical cost only)			1.3
F. IPP (with technical inputs from CIPTA)			0.7
G. Engineering Services			5.8
H. Financial Audits			0.1
I. Price and physical contingencies			9.9
Subtotal			110.2
J. Land Acquisition (<i>not financed by the Bank</i>)			8.0
Component 2. Improving the Rurrenabaque Airport			
	6.0		6.0
A. Construction of taxiway, apron, drainage, control tower, new passenger terminal, fire-fighting building, rehabilitation of existing passenger terminal, including EIA/EMP implementation			2.5
B. Equipment (air control, rescue and fire-fighting, systems in passenger terminal, runway lighting, security)			2.4
E. Engineering Services			0.3
F. Financial Audits			0.08
G. Price and physical contingencies			0.72
Component 3. Institutional Strengthening of ABC and AASANA, and other relevant entities			
		5.0	5.0
A. Institutional strengthening of i) ABC and ii) AASANA (including GAC Action Plan)			1.0
B. Mitigation of environmental indirect effects from the operation of the road, including support to other agencies (SERNAP, ABT and VIAS BOLIVIA) (includes control checkpoints)			4.0
TOTAL PROJECT COST			
	109.5	19.7	129.2

Annex 3: Implementation Arrangements

BOLIVIA: National Roads and Airport Infrastructure Project

1. **Project Implementation.** Given its mandate of managing the primary road network, the national road agency, ABC will be the implementing agency for Component 1 *Improving the San Buenaventura – Ixiamas Road* and Part (a)(i) and (b) of Component 3 *Institutional Strengthening of ABC and AASANA, and other relevant entities*. ABC will be responsible for project administration, including financial management, procurement processes, contract management, monitoring works progress and reporting, and for the implementation of appropriate social and environmental measures to mitigate potential negative impacts (for the components under its responsibility). The execution of works will be contracted to construction companies with the necessary technical and financial capacity (works will be bid under one procurement process, with two lots). Supervision of the contractor activities will be the responsibility of the Supervision Engineer who will be required to provide environmental, social and HIV/AIDS monitoring (a single supervision is envisaged for the whole road). The project will provide institutional support to ABC, targeted to capacity building and project implementation. The support includes consultants for project management and for monitoring and evaluation (among others).
2. AASANA will be the implementing agency for Component 2 *Improving the Rurrenabaque Airport* and Part (a)(ii) of the *Institutional Strengthening of ABC and AASANA, and other relevant entities* under Component 3, including financial management related tasks, procurement of small civil works and equipment, and monitoring performance and reporting, and for the implementation of appropriate social and environmental measures to mitigate potential negative impacts. The execution of works will be contracted to firms with the necessary technical and financial capacity, and the Supervision of contractors' activities will be the responsibility of a Supervision Consultant who will be required to provide environmental and social monitoring, as required.
3. **Capacity of Implementing Agencies.** ABC in implementation of the Bank's Road Rehabilitation and Maintenance Project (P068968/Cr. 3630-BO), has shown internal weaknesses in project management, administration, and human resources. The entity's lack of a unique and reliable source of information prevents ABC from providing timely, comprehensive and reliable information to adequately control and monitor physical and financial progress of contracts. Also, the processes for amendments, contractual claims, and dispute resolutions are not reasonably established. Moreover, ABC's long-lasting internal reorganization processes and staff rotation prevent the entity from fully establishing and maintaining solid and efficient operational arrangements, including internal controls. ABC currently has a procurement unit. If required, the project could support an additional consultant in that regard.
4. AASANA does not have experience working with multilateral financing or demonstrated capacity for effective management and delivery. AASANA showed delays in turnaround and deficiencies in its filing system and contract monitoring.

5. To strengthen implementing capacity, ABC and AASANA agreed to the following institutional strengthening measures. Draft TORs were presented at negotiations and will be completed by credit effectiveness.

Institutional Strengthening Measures

Entity	Activity	Financed by	TOR subject to Bank approval?	Hiring of Consultant ²⁰
ABC	1 social specialist, trained as an anthropologist or with experience working with local indigenous peoples, during the life of the project.	ABC (100%)	YES	no later than three (3) months after effectiveness
	1 environmental specialist during the life of the project.	ABC (100%)	YES	no later than three (3) months after effectiveness
	1 procurement specialist (if required)	ABC (100%)	YES	
	1 international specialist in contract management during the duration of the works (minimum 3 years).	ABC (100%)	YES	no later than three (3) months after effectiveness
	1 monitoring and evaluation specialist during the life of the project in ABC, but who will support AASANA if it were necessary.	ABC (100%)	YES	no later than three (3) months after effectiveness
AASANA	1 procurement specialist. AASANA agreed to designate two staff for procurement purposes, who would be working as long as there are ongoing procurement activities. These persons will be trained by the Bank procurement specialist	AASANA (100%)	YES	no later than three (3) months after effectiveness
ABC + AASANA	Implementation of GAC Action Plan (within 6 months of Project effectiveness).	ABC (100%)	YES	
Various	Mitigation of induced effects by operation of the road, including support for relevant entities (SERNAP, ABT, and VIAS BOLIVIA).	Note: GOB has committed to organizing a participatory working group to be convened periodically (at least every 6 months) by the Ministry for Development Planning	N/A	

I. FINANCIAL MANAGEMENT

6. A financial management capacity assessment was carried out to determine the adequacy of ABC's and AASANA's financial management arrangements to support project

²⁰ These timelines are not legal conditions, but represent timeline foreseen in implementation plan.

implementation under its respective components. The purpose of this section is to spell out the main features of financial management arrangement for project implementation.

7. Project design is straightforward, with clearly defined activities and few contracts although large in value. Therefore, complex FM arrangements are not required. Project implementation will widely rely on existing arrangements, both in ABC as well as AASANA. While ABC has developed experience in external financed projects and it is currently implementing an IDA-financed project (Road Rehabilitation and Maintenance Project P068968/Cr. 3630-BO), FM performance is considered moderately satisfactory and there are still some shortcomings that need to be addressed. Thus, specific measures are introduced to supplement the existing arrangements in order to ensure they fully respond to project needs allowing timely, agile and smooth project implementation. Those arrangements include: i) revised and streamlined processes and procedures, including internal controls, focusing on contract management, approval of progress certificates and payment processing; ii) implementation of new information systems (for ABC) that allows compiling the information related to programming and budget execution, to provide ABC with a single and reliable source of information for monitoring purposes; and iii) adjustments to the format, content and specific arrangements for preparation of interim financial reports. These arrangements reviewed and agreed with the Bank are reflected in the Operational Manual.

8. The project's FM inherent risk is rated substantial; similarly the FM control risk is rated substantial too, mainly based on the lack of experience of AASANA and the identified shortcomings which affect/limit ABC's capacity under the current project. While specific arrangements to overcome those shortcomings have been discussed and designed, effective implementation and operation will depend on timely selection and contracting of key positions agreed to operationalize the proposed arrangements. The overall FM risk is rated substantial.

9. Based on the progress reached by ABC and AASANA in the definition of financial management arrangements, including specific strengthening measures, the proposed arrangements –as designed- can be considered acceptable to the Bank, keeping in mind though that effective implementation and later operation will highly depend on the selection and hiring of key staff agreed in this document.

10. ABC has significantly built on the experience and existing arrangements of its predecessor and as such they do have experience in external-financed projects (World Bank, IDB, CAF); however, the entity has been subject to constant changes and internal reorganization processes, which have prevented from fully establishing and maintaining solid and efficient operational arrangements, including internal controls, at central and regional/departamental levels.

11. **Organizational arrangements and staffing.** As a decentralized entity, ABC has been granted administrative, technical and economic autonomy, but it has to comply with the Government's financial management arrangements in terms of budgeting, accounting, internal controls, funds flow and financial reporting, which have been complemented with more specific arrangements according to its needs and external financiers' requirements. ABC is in the process of implementing a new structure towards a more decentralized model; thus it is expected that Regional Office (in this case La Paz Regional Office), take a more active role in technical and

administrative tasks. Within such framework, while overall financial management tasks are under the responsibility of the “*Dirección General Administrativa Financiera*” (DGAA), processing of payments will be partly assumed by Regional Offices. Specific responsibilities for Regional Norte and National Office have been reviewed and agreed and will be reflected in the Operational Manual taking into account the number of transactions expected for the proposed project, there is no need to hire any specific staff; however, additional training may be required, in case new staff is assigned to WB project.

12. **Programming and Budget.** The preparation of the annual program and budget follows local regulations established by the Ministry of Economy and Public Finance (MEFP)²¹, and specific regulations and instructions that may be issued by Viceministry of Public Investment and External Finance (VIPFE). Additionally, it has been agreed that a Project Contract Manager will be in charge of preparing annual operating plan with at least quarterly budgets estimates (based on contractors’ disbursement schedules), which can be consistently used for monitoring purposes, mainly at contract level, presenting both, estimates and budget execution.

13. **Accounting – Information System.** ABC has to comply with the Governmental Accounting Standards. Therefore, the project would use the Chart of Accounts established by the Accountant’s General Office (*Dirección General de Contabilidad Fiscal*). The project will benefit from the use of SIGMA (Government’s integrated financial management system), and Treasury Single Account (CUT in US dollars and local currency) to process payments. Preparation of financial statements will follow the cash basis of accounting. Similar to current arrangements SIGMA will be complemented with Excel Spreadsheets to record expenses by project component/category/contract, to allow preparation of financial reports and withdrawal applications. Although those records are kept up to date, there is need to ensure that such information is consistently used throughout the entity as a unique and reliable source of information for monitoring purposes, a recurrent weakness in the past. In order to address this weakness and other information needs, as of the date of this document, ABC is in the process of designing/implementing and strengthening its information systems towards a more integrated approach mainly in terms of annual programming – budget and budget execution, however such process is delayed. Once in place, Bank’s team will need to review the operation of the system to allow and facilitate accounting of project transactions and issuance of reliable financial reports.

14. **Processes and Procedures.** Overall, processes put in place by ABC comply with local requirements related to administrative and control systems. Within those processes, ABC has put in place detailed procedures to address its specific needs, including those related to contract management, approval and payment of civil works progress certificates and supervision contracts. The procedures set for approval of progress certificates and further payment, proved to be cumbersome, lengthy and usually caused delays and some weaknesses were identified in the past. Those internal processes are being revised in order to reflect adjustments in structure and delegation of certain tasks to Regional Offices. However, for project purposes, the following procedures have been agreed: i) approval of progress certificates will be made by Project Contract Manager –based on the external supervisor’s report- ii) the so called *planilla* will then be submitted to the “*Ingeniero de Seguimiento*” (the engineer responsible) to start the administrative process of payment and Regional Office Manager’s approval. iii) payment

²¹ Law No. 2042, Supreme Decree No. 29881 dated January 7, 2009 – Regulations for Budgetary Modification.

processing up to the accrual stage in SIGMA will be made by Regional Office 'administrative team; and iv) payment will be made by ABC's National Office either through CUT or direct payment request. These arrangements including detailed description of roles and responsibilities will be reflected in the Operational Manual.

15. ABC has also established an Internal Audit Unit, which on an annual basis issues a reliability report (*Informe de Confiabilidad*) on the entity's financial information, and which may include the project as part of its review, albeit with limited scope.

16. *Operational procedures under Component 3.* Considering that implementation of activities under component 3 (b) will require the participation of other beneficiary entities (e.g. ABT, SERNAP), it has been agreed that while overall responsibility for Component 3 relies with ABC, specific operational arrangements will be reflected in the Operational Manual, providing that: i) in case these activities are financed 100% with counterpart contribution, local budget will be directly allocated to the related entity, which will carry out the activities and periodically (quarterly) inform ABC on progress achieved including financial information to be reflected in project financial reports; ii) in case activities are financed with credit proceeds, ABC will take the necessary actions to make sure the beneficiary entities carry out selection and contracting procedures in accordance with Bank's procedures. For payment processing, ABC will transfer funds to the related entity on specific amounts required to attend imminent payments. ABC will then review the supporting documents in order to account for project investments and report them in a withdrawal application. Proposed arrangement will be reflected in an inter-institutional agreement to be entered into between ABC and the related entity reflecting roles, responsibilities and operational procedures.

17. **Financial Reporting.** Taking into account the considerations made in the Accounting-Information System section, at present the interim financial reports (IFRs) would have to be prepared manually on the basis of the auxiliary records maintained in Excel, while making sure the required reconciliation process between SIGMA and the Excel records is systematically performed. Taking into consideration the expected number of transactions, this approach would continue to be acceptable to the extent such information is consistently used by all ABC units for reporting and monitoring purposes. As ABC makes progress with the design/implementation of new systems; issuance of financial reports would be assessed. Those interim financial reports will specify sources and uses of funds, reconciling items (as needed) and cash balances, with expenditures classified by project component/subcomponent/contract; and a statement of investments reporting the current quarter and the accumulated operations against ongoing plans and footnotes explaining the important variances. Those interim financial reports will specify sources and uses of funds (credit and counterpart funds), reconciling items (transfers made to beneficiary entities pending documentation) and cash balances, with expenditures classified by project component/subcomponent; and a statement of investments reporting the current quarter and the accumulated operations against ongoing plans and footnotes explaining the important variances. Format and content of the reports have been substantially agreed as well as responsibilities for preparation. Those reports would be prepared and submitted to the Bank on a quarterly basis no later than 45 days after the end of each calendar quarter. The reports would be prepared in local currency and US dollars.

18. On an annual basis, ABC will also prepare project financial statements including cumulative figures, for the year and as of the end of the year. Those financial statements would include explanatory notes in accordance with International Public Sector Accounting Standards.

19. **Audit.** Annual audit reports on project financial statements, including management letter should be submitted to the Bank, within six months of the end of the Borrower’s fiscal year (December 31). The audit should be conducted by an independent audit firm acceptable to the Bank and under terms of reference approved by the Bank. Audit cost would be financed out of credit proceeds and selection would follow standard Bank procedures. The scope of the audit would be defined by ABC in agreement with the Bank based on project specific requirements and responding, as appropriate to identified risks. Audit requirements would include:

Audit type	Due date
Project financial statements	June 30

AASANA

20. AASANA is a public decentralized entity with legal status, administrative autonomy and own equity. As a decentralized entity, AASANA has to comply with the Government’s financial management arrangements in terms of budgeting, accounting, internal controls, funds flow and financial reporting.

21. **Organization and staffing.** Overall the entity’s financial management task are under the responsibility of the National Administrative, Finance and Commercial Director (*Dirección Administrativa, Financiera y Comercial Nacional*), which includes a Finance Unit in charge of budgeting, accounting and treasury functions. AASANA’s national administrative-finance office would undertake overall responsibility for administration of credit proceeds, using its existing arrangements, strengthening and/or streamlining them as needed. No additional FM staff would be needed; although specific training may need to be provided, mainly in terms of disbursements and financial reporting.

22. **Programming and Budget.** Like any other government entity, the preparation of the annual program and budget will follow local regulations established by the Ministry of Economy and Public Finance (MEFP)²², and specific regulations and instructions that may be issued by the Viceministry of Public Investment and External Finance (VIPFE) as applicable. Within those lines, according to AASANA’s Functions Manual responsibility for the preparation of annual program and budget are assigned to Planning and Administrative-Finance Units, respectively. For project purposes, those general procedures will be complemented by some specific guidelines to ensure timely and efficient coordination within those units not only for preparation of an annual operating plan and budget, but also for the preparation and monitoring of at least quarter budget/cash flow forecasts.

23. **Accounting – Information System.** AASANA has to comply with the Governmental Accounting Standards. Therefore, the project would use the Chart of Accounts established by the Accountant’s General Office (*Dirección General de Contabilidad Fiscal*) for decentralized

²² Law No. 2042, Supreme Decree No. 29881 dated January 7, 2009 – Regulations for Budgetary Modification.

entities, and project transactions will be recorded and processed through SIGMA and the Treasury Single Account (CUT in US dollars and local currency). Preparation of financial statements will follow the cash basis of accounting. While official budgeting and accounting records are maintained in SIGMA following government classification, AASANA will also keep auxiliary records in Excel to record expenses by project component, cost category/contract to allow preparation of financial reports and withdrawal applications. Specific internal control mechanisms to ensure timely updating of those records have been agreed, thus, the proposed approach is fully acceptable taking into account number of transactions expected under project activities.

24. **Processes and Procedures.** In accordance with local requirements related to administrative and control systems, AASANA has put in place required processes and specific procedure which are more in line with its core business areas, and maybe focusing more on the administrative tasks, rather than looking through the whole cycle. AASANA has prepared specific chart flows detailing roles and responsibilities for the approval of progress certificates (under the responsibility of the Technical Directorate) as well as payment processing (under the responsibility of the Administrative Directorate). Those procedures provide for an adequate segregation of duties, and they will be reflected in the Operational Manual

25. **AASANA's Internal Audit Unit,** which on an annual basis issues a reliability report (*Informe de Confiabilidad*) on the entity's financial information may also include as part of its annual program a review of the project.

26. **Financial Reporting.** Taking into account the considerations made in the Accounting-Information System section, the interim financial reports (IFRs) would have to be prepared manually in Excel Spreadsheets, on the basis of the auxiliary records maintained in Excel, while making sure the required reconciliation process between SIGMA and the Excel records is systematically performed. Considering the expected number of project transactions this approach would be acceptable to the extent such information is consistently used by all AASANA units for monitoring purposes. Those interim financial reports will specify sources and uses of funds, reconciling items (as needed) and cash balances, with expenditures classified by project component/subcomponent; and a statement of investments reporting the current quarter and the accumulated operations against ongoing plans and footnotes explaining the important variances. The reports would include credit proceeds, and local funds as applicable. Format and content of the reports have been agreed during appraisal. Those reports would be prepared and submitted to the Bank on a quarterly basis no later than 45 days after the end of each calendar quarter. The reports would be prepared in local currency and US dollars.

27. **Audit.** Annual audit reports on project financial statements, including management letter should be submitted to the Bank, within six months of the end of the Borrower's fiscal year (December 31). The audit should be conducted by an independent audit firm acceptable to the Bank and under terms of reference approved by the Bank. Audit cost would be financed out of credit proceeds and selection would follow standard Bank procedures. The scope of the audit would be defined by AASANA in agreement with the Bank based on project specific requirements and responding, as appropriate to identified risks. Audit requirements would include the following:

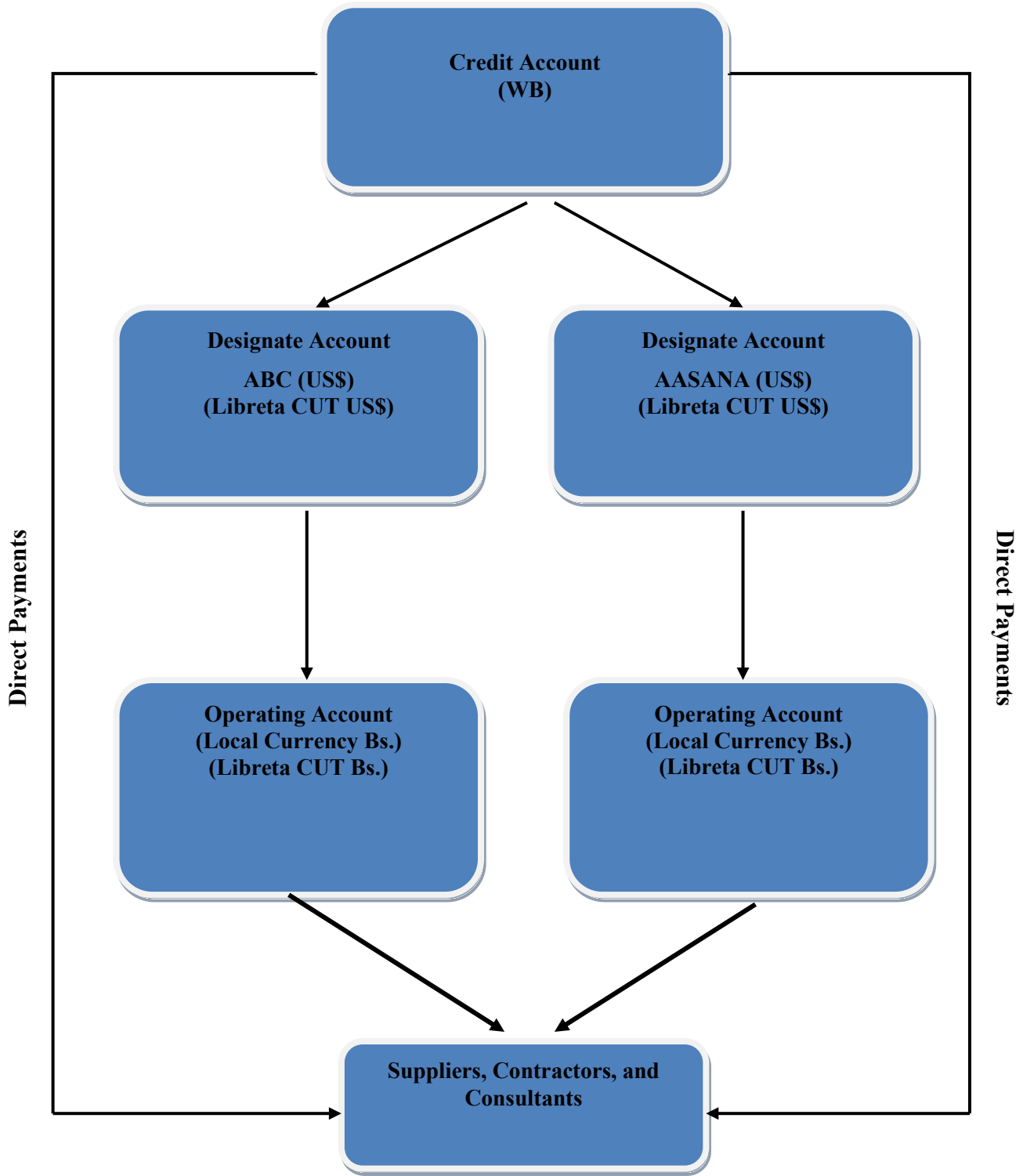
Audit type	Due date
Project financial statements	June 30

FLOW OF FUNDS AND DISBURSEMENT ARRANGEMENTS

28. On a preliminary basis and following the general practice of the current portfolio, the following disbursement methods may be used to withdraw funds from the credit: (a) reimbursement, (b) advance, and (c) direct payment. Taking into account the nature of the activities, as well as the size of the contracts, it is expected that direct payment option will become the preferred option, mainly to process payments under the civil work contracts. Overall disbursements from the World Bank would follow standard policies and procedures as described in the Disbursement Letter.

29. Under the advance method and to facilitate project implementation, two **Designated Accounts** in US dollars would be opened and maintained by AASANA and ABC respectively, who would have direct access to funds advanced by the Bank to the DA.

30. In keeping with current arrangements established by the Viceministry of Treasury and Public Credit for the operation and use of a Single Treasury Account in US dollars (CUT-ME; Supreme Decree No. 29236 dated August 22, 2007), the Designated Accounts (DA) will be opened and maintained as a separate *Libreta* within the Treasury Single Account (CUT) in US dollars, which will also operate with a separate *Libreta* within the Single Treasury Account in *Bolivianos*, from which all payments and disbursements to beneficiaries' bank accounts will be processed.



ALLOCATION OF CREDIT PROCEEDS

<u>Category</u>	<u>Amount of the Credit Allocated (US\$ equivalent)</u>	<u>Percentage of Expenditures to be Financed (inclusive of Taxes)</u>
(1) Goods, works, consultants' Services (including audits), Non-consultant' services, Operating Costs and Training under Part 1 of the Project	103,500,000	100%
(2) Goods, works, consultants' Services (including audits), Non-consultant Services, Operating Costs and Training under Part 2 of the Project	6,000,000	100%
TOTAL AMOUNT	109,500,000	

31. The proceeds of the credit may finance up to a maximum of US\$ 20,000,000 for eligible expenditures incurred on or after March 1, 2011, but no more than one year from signing, whichever is later.

32. **Supervision Strategy.** On a preliminary basis, the FM team plans to perform at least two supervision missions per year, while also reviewing the annual audit reports and the quarterly IFRs.

33. **Conditionality.** Detailed procedures discussed and agreed during appraisal need to be reflected in the Operational Manual, which constitutes an effectiveness condition.

II. PROCUREMENT

34. As part of the preparation process of the project, an in-depth assessment of the procurement capacity of the two implementing agencies was carried out, and a detailed action plan was prepared to address all risks identified. The overall project risk for procurement is high²³, which is the result of: (a) the risky country procurement environment, mainly due to the weaknesses of control institutions, lack of uniform ethics standards and established procedures to address wrongdoing, and lack of competitiveness of the market; and (b) AASANA's lack of experience with Bank financed projects. The corrective measures that have been agreed are: (i) a

²³ Risk rating might be upgraded to "Substantial" during project implementation depending on actual implementation of mitigation measures and their impact, which will be assessed during Procurement Post-Review Exercises.

project operational manual, including, inter alia, procurement and contracting procedures, will be adopted as a condition of effectiveness of the Financing Agreement (a draft was reviewed and considered satisfactory to the Bank during appraisal); (ii) inclusion in the Loan Agreement of the Special Procurement Provisions; (iii) AASANA will strengthen its procurement unit through designating two staff for procurement (with the time required to attend these tasks) who will be trained by the local procurement specialist, those staff will stay in this position until all procurement activities are completed; (iv) the Financing Agreement includes additional provisions related to Project Implementation under Procurement point of view; and (v) close monitoring by the Bank, particularly during the first year of project implementation.

A. General

35. Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines: Procurement under IBRD Loans and IDA Credits" dated May 2004, and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004, both versions updated in October 2006 and May 2010, and the provisions stipulated in the Legal Agreement. The various items under different expenditure categories are described below. For each contract to be financed by the credit, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and timeframe, are agreed between the Recipient and IDA in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. A draft Operational Manual for the project has been prepared for each Institution, and includes further details on the procurement processes and arrangements.

36. **Procurement of Works.** Works procured under this project would include the construction of the San Buenaventura – Ixiamas corridor, along National Route F-16. The corridor consists of two continuous sections connecting (from south to north) the cities of San Buenaventura and Tumupasa, and Tumupasa and Ixiamas, and for the Component II would include the: construction of a taxiway, construction of an apron, construction of a control tower; construction of a new passenger terminal. International Competitive Bidding (ICB) processes will be followed for all contracts estimated to cost US\$3,000,000 or above. Packages amounting to under US\$3,000,000 in the aggregate may be procured using National Competitive Bidding (NCB) processes. Shopping procedures may be used for contracts amounting up to US\$250,000. Procurement of works will be done using the Bank's standard bidding documents (SBD) for all international competitive bidding (ICB) procurement. For national competitive bidding (NCB) or Shopping (S) methods, documents agreed with or satisfactory to the Bank will be used.

37. **Procurement of Goods and Non Consultant Services.** Goods procured under this project will include: Procurement of rescue and firefighting equipment; vehicles, IT equipment, etc., which are necessary for each Institution to carry out the works and supervision. International Competitive Bidding (ICB) processes will be followed for all contracts estimated to cost US\$200,000 or above. Packages amounting to under US\$200,000 in the aggregate may be procured using National Competitive Bidding (NCB) processes. Shopping procedures may be used for contracts amounting up to US\$50,000. Procurement of goods and non consultant services will be done using the Bank's standard bidding documents (SBD) for all international

competitive bidding (ICB) procurement. For national competitive bidding (NCB) or Shopping (S) methods, documents agreed with or satisfactory to the Bank will be used.

38. **All procurement notices shall be advertised** in the project's website, the government's website (SICOES), and at least in one local newspaper of a wide national circulation. ICB notices and contract award information shall be advertised in the United Nations Development Business online (UNDB online) and in the Development Gateway's dgMarket, in accordance with provisions of paragraph 2.60 of the Procurement Guidelines.

39. **Selection of Consultants:** Consulting Firms services will be contracted under this project in the following areas of supervision services, engineering, training, and logistics. The procurement of consulting firms will be carried out using Bank's standard Request for Proposals (RFP). International firms will have the opportunity to participate in about all solicitations above US\$100,000. Shortlists of consultants for services estimated to cost less than US\$100,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. Consulting Firms would be selected following Quality- and Cost-based Selection (QCBS) for all contracts in the estimated amount of more than US\$100,000.

40. **Selection of Individual Consultant Services.** Individual consultant services will be contracted mostly for Project Management and for technical advice, mainly in the substantive matters of the project. The Terms of Reference, job descriptions, minimum qualifications, terms of employment, selection procedures, and the extent of Bank review of these procedures to contract the "Consultores de linea" and documents shall be described in the project Operational Manual and the contract shall be included in the Procurement Plan to be approved by the Bank. A project website, a government website (SICOES), and a national newspaper shall be used to advertise expressions of interest as the basis for developing short lists of consulting firms and individual consultants, and to publish information on awarded contracts in accordance with the provisions of paragraph 2.28 of the Consultants' Guidelines and as mandated by local legislation. Contracts expected to cost more than US\$100,000 shall be advertised in UNDB online and in dgMarket. Shortlists of consultants for services estimated to cost less than US\$100,000 equivalent per contract may be composed entirely of national consultants, in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

41. **Training.** Training would include expenditures (other than those for consultants' services) incurred by the Borrower to finance logistics for workshops, meetings, and seminars, and reasonable transportation costs and per diem of trainees and trainers (if applicable), training registration fees, and rental of training facilities and equipment. The procurement would be done using NCB and Shopping procedures as discussed below. Direct Contracting (paragraph 3.6 of the Procurement Guidelines) may be used for: (a) the payment of registration fees, up to a ceiling amount to be established annually in the Procurement Plan.

42. **Operating Costs.** The project will finance expenses for project administration. These expenses will include major project operating costs, including hiring personnel and procuring hardware and software. These operating costs will be administered in accordance with the

Bank's Procurement Guidelines, as appropriate. This procurement also will be carried out using the Bank's SBD or National SBD agreed with or satisfactory to the Bank.

B. Procurement Plan

43. ABC and AASANA prepared a procurement plan for project implementation based on existing information and the envisaged implementation of the project. A copy of each plan is available both in AASANA and ABC. It will also be available in the project's database and in the Bank's external website. The Procurement Plan will be updated semi-annually or as required by either the Borrower or the Bank to reflect the actual project implementation needs and improvements in institutional capacity.

44. The Procurement Plan sets forth those contracts which shall be subject to the Bank's Prior Review. All other contracts shall be subject to Post Review by the Bank, except for those contracts terminated by the recipient's agency for which the Borrower shall seek the Bank's no objection prior to the proposed termination.

C. Frequency of Procurement Supervision

45. In addition to the prior review supervision to be carried out by Bank offices, the capacity assessment of ABC/AASANA has recommended semi-annually supervision missions, including field visits, post-reviews of procurement actions. 1:5 contracts will be post-reviewed by the Bank. Based on the finding of the PPRs and the proposed ratings, the Bank may determine the revision of the prior review requirements.

D. Details of the Procurement Arrangements Involving International Competition

1. Goods, Works, and Non Consulting Services

(a) List of contract packages to be procured following ICB and direct contracting:

1	2	3	4	5	6	7	8	9
Ref. No.	Contract (Description)	Estimated Cost	Procurement Method	P-Q	Domestic Preference (yes/no)	Review by Bank (Prior / Post)	Expected Bid-Opening Date	Comments
	Bid for the construction of San Buenaventura – Ixiamas corridor	US\$ 93.7 million	ICB	No	Yes	Prior	Dec 2011	Works- starts Feb - March2012
	Procurement of rescue and firefighting equipment	US\$ 1.5 million	ICB	No	Yes	Prior	Dec 2012	estimated

(b) ICB contracts for **works** estimated to cost above US\$3.0 million and ICB contracts for **goods** estimated to cost above US\$200,000 per contract and all direct contracting will be subject to

prior review by the Bank. Direct Contracting regardless of the amount, will be subject to prior review by the Bank.

2. Consulting Services

(a) List of consulting assignments with short-list of international firms.

1	2	3	4	5	6	7
Ref. No.	Description of Assignment	Estimated Cost US\$	Selection Method	Review by Bank (Prior / Post)	Expected Proposals Submission Date	Comments
	Request for Proposal for the supervision of the construction of San Buenaventura – Ixiamas corridor	US\$ 5.8 million	QCBS	Prior	August 2011	Supervision services
	Request for Proposal for the supervision of civil works.	US\$0.3 million	QCBS	Prior	N/A	

(b) Consultancy services estimated to cost above US\$100,000 per contract and all single source selection of consultants (firms) will be subject to prior review by the Bank. Individual consultants services to cost US\$25,000 or above per contract or single source, regardless of the amount, will be subject to prior review by the Bank.

(c) Shortlists composed entirely of national consultants: Shortlists of consultants for services estimated to cost less than US\$100,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

E. Thresholds for procurement methods and prior review

Expenditure Category	Contract Value (Threshold) (US\$000)	Procurement Method	Bank Prior Review
1. Works	>3,000	ICB	All
	3,000>250	NCB	First two each year
	<250	Shopping (Price Comparison)	First two each year
	Regardless of value	DC.	All.
2. Goods	>200	ICB	All
	200>50	NCB	First two each year
	<50	Shopping	First two each year
	Regardless of value	DC.	All.
3. Consultant Services	>100	QCBS	All
	<100	QCBS, QBS, CQ, FBS, LCS (as per Procurement Plan)	All TOR. Selection Process reviewed twice yearly (Ex Post).
	Regardless of value	SSS	All contracts awarded under SSS.
4. Individual Consultants	>25	IC	All
	<25	IC	All TOR. Selection Process reviewed twice yearly (Ex Post). All contracts awarded under SSS, and key personnel

	Regardless of value	SSS	All contracts awarded under SSS, and key personnel
Total value of contracts subject to prior review: US\$ (No information available)			

Notes: ICB: International Competitive Bidding; NCB: National Competitive Bidding; DCN Direct contracting; QCBS: Quality-Cost Based Selection; QBS: Quality Based Selection; FBS: Fixed Budget Selection; LCS: Least-Cost Selection; CQS: Consultant Qualification Based Selection; SSS: Sole Source Selection

III. GOVERNANCE AND ANTI-CORRUPTION (GAC) ACTION PLAN

46. **Governance and Anti-Corruption (GAC) Action Plan.** At the preparation of the Operational Risk Assessment Framework (ORAF), it was concluded that there were some governance weaknesses that may affect reaching the project objectives. Issues were identified in three critical aspects: (i) communications and information; (ii) institutional capacity; and (iii) transparency and empowerment of stakeholders. The inputs for improvements in these three critical areas and related mitigation actions and tools, are presented in the Good Governance and Anti-Corruption Plan (GAC) Action Plan. Discussions were held with the ABC, ASSANA and VIPFE in order to share the identified governance weaknesses and the proposed remedies. During appraisal ABC introduced some changes that are reflected in the final version of the GAC Action Plan:

GAC Action Plan approved during appraisal

Risk	Mitigation and Control Measures	Entity Responsible and Due Date	Warning Indicator
1. Public opinion about the Project could be negative if its implementation increases illegal logging, deforestation, or if there is a negative impact on the Madidi National Park.	<p>1. Use of a communication and information dissemination system that includes the following:</p> <p>(i) Create a website for the Project located in the MOPSV website, with links to ABC's and AASANA's websites;</p> <p>(ii) Carry out periodic communication campaigns for those directly affected by the Project, through the written word and through radio. The campaigns will serve to present progress made on the Project, the potential benefits and impacts, and to answer questions and address suggestions;</p> <p>(iii) Carry out information sessions with indigenous populations regarding the project's progress, the potential benefits and impacts, and to answer questions and address suggestions;</p> <p>(iv) Publish brief reports on the project's progress (including works as well as progress on environmental and social issues) in the national press, and present the information in local television and radio channels;</p>	<p>(i) MOPSV, with support from ABC and AASANA, within six (6) of Project effectiveness;</p> <p>(ii) ABC and AASANA to begin the communication campaign when the contractor are appointed;</p> <p>(iii) ABC and AASANA will publish annual progress reports once the project begin its implementation;</p> <p>(iv) SERNAP and ABT will be responsible for preparing updated reports and for</p>	<p>- Increase in the number of complaints received from people that feel impacted by the Project.</p> <p>-In randomly-conducted surveys with peoples directly affected by the Project, these same people are unable to identify the works that the Project intends to build.</p> <p>-The transport of illegally-cut wood increases.</p>

	<p>(v) Create and make operational a high level working group under the lead of the Ministry for Development Planning to address the issue of sustainable economic development in the area.</p> <p>2. Mitigation measures for indirect impacts are the following:</p> <p>(i) Improve SERNAP’s capacity to monitor and enforce rules and regulations intended to protect Madidi National Park;</p> <p>(ii) Improve ABT’s and SERNAP’s instruments and regulations regarding the use of lands, woodlands, and protected areas, so as to better monitor the SBV-Ixi area of influence;</p> <p>(iii) ABT will install checkpoints for trucks transporting wood, to determine if the wood was logged legally;</p> <p>(iv) Organize a forum with entities (including NGOs) that work in the Project area to exchange ideas on the regional development of the area and to ascertain how the Project contributes to this development;</p> <p>(v) The firm charged with works supervision will also be responsible for monitoring social and environmental aspects during work construction (for both AASANA and ABC).</p>	<p>constant monitoring;</p> <p>(v) The Ministry for Development Planning will consolidate the working groups and will lead its activities;</p> <p>(vi) AASANA and ABC will ensure that supervision will be in place when the works begin;</p>	
<p>2. Poor performance by contractors delays the project</p>	<p>1. Select the most qualified contractor, through the following activities:</p> <p>(i) Promote interest from the greatest number of construction firms;</p> <p>(ii) Publish the request for proposals in national procurement systems (SICOES), international media (DgMarket and Development Business) and notify neighboring-country delegations in La Paz of the process; and publish the results of the bidding process in the national procurement systems and/or in the Project’s website;</p> <p>(iii) Include in the bidding documents the requirement for contractors to indicate subcontractors.</p>	<p>ABC and AASANA will follow (i) and (iii) for every procurement process. (ii) will apply depending on the amount of the activity.</p> <p>ABC and AASANA will permit the supervisor to act independently. The supervisor will be active throughout construction.</p>	<p>The physical advance of the works is delayed 10% as compared to the contractor’s activities plan.</p>

	2. Mitigation Measure: an independent and highly-qualified consulting firm will supervise construction and will approve work delivery and payment to the contractor.		
3. The Project does not put in place a system to channel complaints or suggestions by the public, Project beneficiaries, persons affected by resettlement and users of the road and airport	<p>1. Use of a complaints and suggestions mechanism. The objective is to receive these complaints and suggestions at a one-stop window for all aspects of the Project. This window will be located in MOPSV, in the Transparency Unit. To make this mechanism operational, MOPSV will have the support of both AASANA and ABC.</p> <p>2. Mitigation Measure: the location where a person presents a complaint or suggestion will be registered in all documentation and sites where information about the Project appears, and will include: Name of the office responsible for processing complaints and suggestions, complete address, telephone number (free, 24/7 hotline with recording capability), and the website. The person presenting the complaint or suggestion will fill a form with his/her personal information and a description of his/her concerns.</p> <p>Anonymous complaints could be presented at the same locations.</p>	<p>MOPSV will be charged with the reception of complaints and suggestions, will make appropriate inquiries in furtherance of these, and in cooperation with ABC and AASANA will produce an appropriate response;</p> <p>The same procedure will apply for anonymous complaints.</p>	<p>-Complaints and suggestions are not logged in the complaints registry.</p> <p>-The acknowledgement of receipt for communications received is not sent or takes over 48 hours to be sent.</p> <p>-A response to communications received is not forthcoming within 15 working days.</p> <p>-The person presenting the complaint or suggestion presents the complaint or suggestion repeatedly.</p>

47. The practices and processes introduced would help the MOPSV to strengthen its governance practices in order to increase the capacity of the government to effectively manage its natural resources, properly supervise and inspect road construction quality and timely implementation within budget, and to implement sound policies for communications and information dissemination and a grievance mechanism for a successful project implementation and operation.

IV. DISCLOSURE OF SAFEGUARDS DOCUMENTS

48. Disclosure dates of safeguards documents (social and environment) are as presented in the following table. Local disclosures were done through ABC and AASANA websites and global disclosure through the Bank’s InfoShop.

THEME	NAME OF REPORT	COMPONENT	LOCAL DISCLOSURE	GLOBAL DISCLOSURE
Environment	<i>Estudio de Factibilidad Técnico, Económica, Impacto Ambiental y Diseño Final de la Carretera San Buenaventura-Ixiamas</i> - Technical and Economic Feasibility, Environmental Impact and Final Design Study for the San Buenaventura-Ixiamas Road Amended version of same report	Road (Comp. 1)	Dec. 23, 2010 Mar. 1, 2011	Jan. 5, 2011 Mar. 1, 2011
Environment	<i>Mitigación de Impactos Ambientales Potenciales, Principalmente Indirectos, Asociados al Proyecto de Mejoramiento del Camino San Buenaventura – Ixiamas</i> Mitigation of Potencial Environmental Impacts, mainly indirect, associated to the Rehabilitation of the Road San Buenaventura-Ixiamas)	Road (Comp. 1)	Feb. 16, 2011 and updated Mar. 1, 2011	Feb. 16, 2011 and updated Mar. 1, 2011
Environment	<i>Estudio Ambiental para el Mejoramiento del Aeropuerto de Rurrenabaque</i> - Environmental Assessment for Improvements in the Rurrenabaque Airport	Airport (Comp. 2)	Jan. 13, 2011	Feb. 16, 2011
Social	<i>Plan para Pueblos Indígenas de la zona del proyecto San Buenaventura – Ixiamas</i> Indigenous People Plan <i>Estudio de Evaluación Social de la Zona del Proyecto San Buenaventura – Ixiamas</i> Social Assessment	Road (Comp. 1)	Feb 15, 2011 and updated Mar. 1, 2011 Feb 15, 2011 and updated Mar. 1, 2011	Feb 16, 2011 and updated Mar. 1, 2011 Feb 16, 2011 and updated Mar. 1, 2011
Social	<i>Plan de Reasentamiento e Indemnizaciones de Poblaciones Afectadas (PRIPA)</i> - Resettlement and Compensation Plan	Road (Comp. 1)	Feb 16, 2011 and updated Feb. 25, 2011	Feb 16, 2011 and updated Feb. 28, 2011
Social	<i>Plan de Compensación a Personas Afectadas por las Obras de Ampliación y Mejoramiento del Aeropuerto de Rurrenabaque</i> - Abbreviated Resettlement Plan Amended PRIPA	Airport (Comp. 2)	Feb 18, 2011 and updated Feb. 25, 2011	Feb 18, 2011 and updated Mar. 1, 2011

V. SOCIAL

49. The San Buenaventura-Ixiamas road and the Rurrenabaque airport will promote socioeconomic development in the region neighboring the road and in the area serviced by the airport. The road will benefit farmers in the area of influence with improved access to markets. Rural residents along the road and in San Buenaventura, Rurrenabaque, Tumupasa, and Ixiamas will benefit from improved access to services and markets. Freight transporters will benefit from reduced travel times and repair costs. Users of public transportation services will benefit from improved bus services. Both the road and the airport will create job opportunities for local residents during the construction period. After the road improvements are completed, local residents are likely to benefit from the employment opportunities that will be created by the development of the sugar industry and other agrobusinesses. Moreover, the road, combined with the airport is likely to result in increased tourism, which will also increase economic opportunities for local communities. Finally, the paved road will result in a significant reduction in dust, especially during the dry season, and also a reduction in road noise.

50. The road also has potential adverse impacts, notably the impacts of land acquisition during construction and a greater likelihood of traffic accidents during the operation phase. Additional waves of migration to the area could create security issues for local residents and have negative consequences on common property resources, such as fisheries, wildlife, and forests.

51. **Social Safeguards—Involuntary Resettlement Caused by the Road.** A Resettlement and Compensation Plan to address the adverse impacts of Right of Way (ROW) acquisition (*Plan de Reasentamiento e Indemnizaciones de Poblaciones Afectadas -- PRIPA*) was prepared in 2007-2008 as part of the Environmental Impact Assessment. ABC has produced an updated PRIPA, which takes into account: (i) changes in the legal status of land adjacent to the road as a result of the implementation of a titling program by the National Agrarian Reform Institute (*Instituto Nacional de Reforma Agraria - INRA*), (ii) construction of new buildings since 2008, (iii) change in the width of the ROW to be acquired for the project in the urban and rural sections of the road, and (iv) requirements of the World Bank Policy on Involuntary Resettlement (OP 4.12).

52. The original PRIPA was developed under the assumption that the width of the ROW in urban and rural areas was going to be 100 meters (50 meters on each side, from the axis of the road). During project preparation the Bank was informed that: (i) the INRA had titled properties assuming that the road's ROW in rural areas was only 40 meters instead of 100, and (ii) the municipalities of San Buenaventura and Ixiamas had developed their urban plans assuming that the road's ROW in urban areas was 20 meters instead of 100. Based on these findings, the Bank recommended ABC to adapt to these developments by reducing the ROW to 40 meters in rural areas and to 20 meters in urban areas. ABC agreed with this recommendation, which will reduce the adverse impacts of the road project on the local population significantly.

53. The original PRIPA predicted that the road would affect 217 dwellings and other structures built within the 100 meter ROW. However, many new structures have been built since 2008 and, therefore, the figures would have been significantly higher today. According to the

updated PRIPA (based on a 20 meter ROW in urban areas and a 40 meter ROW in rural areas) the road will only affect 70 structures: 40 dwellings, 19 commercial structures (mostly kiosks and small stores) and 12 additional structures (entrances, walls, sheds, etc.).

54. In rural areas, the lots titled by INRA have limits that coincide with the boundary of a 40 meter ROW. Therefore, the project will not require the purchase of land in rural areas, except in cases where it is necessary to make minor adjustments in the frontal boundaries of the land due to errors of measurement. However, the PRIPA has identified 210 cases in which the project will affect crops and trees in areas that encroach the 40 meter ROW, i.e., cases in which the owners who benefit from INRA's titling program are using land beyond the limits established by INRA.

55. In the 70 cases where dwellings and other structures are affected, ABC will provide replacement dwellings of better quality and value. In the 40 cases where dwellings are affected, it will be possible to rebuild the dwelling on the residual land of the lot affected.

56. The updated PRIPA establishes procedures for relocation, compensation, and rehabilitation of affected persons and communities taking into account the requirements of OP 4.12. It covers land acquisition and resettlement caused by the project from San Buenaventura to Ixiamas. The only section that is not covered by the updated PRIPA is a 3 km section, the Tumapasa Bypass (*Variante Tumupasa*), which will be built to avoid adverse impacts on the town of Tumupasa, with indigenous Tacana population. ABC, at the request of the Bank, is modifying the original design of the Bypass for technical and social reasons. The current design would affect four buildings, which were built after the completion of the original PRIPA. The impact of land acquisition for the bypass will be updated by ABC, once the revised designs become available. The compensation procedures defined in the updated PRIPA will be used to compensate the persons affected by the bypass. With the new design, the Bypass is not expected to affect dwellings or other structures.

57. Three workshops were organized during January, 2011 to consult the affected land owners and other stakeholders about the resettlement, compensation and rehabilitation procedures included in the PRIPA. The workshops took place in San Buenaventura, Tumupasa and Ixiamas.

58. **Social Safeguards—Involuntary Resettlement Caused by the Airport.** The construction of the facilities that will be financed as part of this project (new taxiway, apron, control tower, operations building, rescue and fire fighting building, access road and passenger terminal) do not require land acquisition. It will take place on land that is already in the possession of AASANA. AASANA is currently fencing the 300 meter safety zone of the new runway, which is not financed by the Bank. All the land within the 300 meter safety zone of the new runway is also in possession of AASANA (it was expropriated by the Municipality of Rurrenabaque between 1984 and 1986; no resettlements was required for the construction of the new runway). The safety zone meets international standards for the type of aircraft that is currently operating in the Rurrenabaque Airport. However, in the future it may be necessary to expand the safety zone to 400 meters to permit the operation of bigger planes. This expansion would require the partial taking of 11 properties. AASANA has prepared an Abbreviated Resettlement Plan (*Plan de Compensación a Personas Afectadas por las Obras de Ampliación y*

Mejoramiento del Aeropuerto de Rurrenabaque), which defines the procedures to compensate the owners of the 11 properties, in the event that the expansion occurs, as well as the owners of a sawmill that encroach the safety zone of the old runway. The Abbreviated Resettlement Plan also includes procedures to address grievances related to land acquisition.

59. **Social Safeguards—Indigenous Peoples.** ABC conducted a Social Assessment (SA) and together with the affected Indigenous peoples elaborated an Indigenous Peoples Development Plan (IPP). Component 1 of the project (*Improving the San Buenaventura – Ixiamas National Road*) covers two municipalities in the Abel Iturralde province: San Buenaventura and Ixiamas. The first is home to 30 communities and two urban populations. The municipal capital is San Buenaventura and Tumupasa is the community with the largest population. In this county, people primarily dedicate to agricultural production, mainly subsistence farming (rice, bananas, cassava and on a lesser scale, cocoa, citrus fruits and vegetables). They also raise cattle, pigs and chickens. Another source of income is tree felling and the sale of wood to sawmills. In the San Buenaventura area, tourism activities are carried out on the banks of the River Beni. The population is approximately 7,884 inhabitants, predominantly rural.

60. The municipality of Ixiamas occupies the largest space in the province and has large tracts of forests and forest areas. The municipality has an area of 3,704,122 ha, and approximately 303 species of wood (such as Almendrillo, Mapajo, Ochoa, Bibosi, Tajibo and Oak) exist there. The majority of forest concessions, sawmills, community forest organizations and small timber associations dedicated to wood extraction are concentrated in this municipality. The population, around 1,008 inhabitants, is scattered in nucleated communities.

61. In relation to poverty, and according to the 2001 Census, poverty affects 83% of San Buenaventura's total population and 75.5% of Ixiamas' total population, compared to Bolivia's national average of 70.7%. Regarding the quality of life index, San Buenaventura is rated at 0.65 and Ixiamas at 0.61, compared to the Bolivian average of 0.67.

62. The low population density and isolation of the region in which the road will be built allow a relative conservation of ecosystems and biodiversity. However pressures on protected areas are increasing due to expanding agricultural boundaries as well as various violations such as illegal land occupation, the illegal trade of wood or inappropriate forms of tourism. The various social actors consulted expressed concern over a possible increase in conflicts that could occur with the extractive pressures and strains on natural resources brought about by people from the high lands moving to the region to improve their standard of living.

63. The main social groups in the region are the indigenous Tacanas and Esse Ejjas, the Aymara and Quechua settlers who currently denominate “intercultural communities”, big and small businesses, farmers and urban populations based in the municipal capitals. While the majority of these groups understand the benefits the road will bring, the indigenous populations expressed concerns about the possible subjugation of their Indigenous Territories (TCO by their Spanish abbreviation – *Territorios Comunitarios Originarios*). According to the National Institute of Agrarian Reform (INRA), the titled area TCO Tacana is 549,464.83 ha. However not all Tacana communities are incorporated into this TCO, and the Esse Ejja population, who are

semi-nomadic, are the most vulnerable group in the area as they don't have their own territory. Different figures exist for the total number of Tacana people. According to the 2001 census there was a total of 1,153 people in La Paz and Beni. A more recent census funded by international cooperation indicated a population of 5,135 (1994-1995) and 8,380 (2004).

64. The Esse Ejja indigenous people - a group that is also found in the Peruvian Amazon region – are vulnerable because their economic activities are fundamentally based around hunting, fishing and the gathering of forest fruits. They do not have their own territory and they are semi-nomadic. In Bolivia, between the Beni and Madidi rivers, two clans exist: the Equijati near to Riberalta and the Hepahuatahe who are close to Rurrenebaque. The first are part of the Multiethnic II TCO and are affiliated with the Indigenous Central of the Northern Amazon (CIRABO) - a regional third level organization that represents eight indigenous organizations. The IPP provides ethno-historic, cultural and organizational information about the Esse Ejja people. Currently, the Esse Ejja face a number of problems in carrying out their economic activities due to the actions of loggers and settlers.

65. Conflicting data exist concerning the population of this community. According to the Indigenous Central there are 50 families, whilst according to other sources there are 17 families with 113 people in total. As this group is semi-nomadic it is very difficult to establish population data. This community also begs in Rurrenebaque, which resulted in them being thrown out for presenting a 'bad image' to tourists. It is due to this that a religious group bought them the ten hectares on which the community is currently settled, however this land is insufficient for their needs and is not a legally recognized TCO.

66. An IPP in compliance with OP4.10 was completed and approved by the TCO 1's Consejo de Corregidores and representatives of the Esse Ejja peoples. The Social Assessment and IPP have been disclosed both locally and through the Bank's Infoshop. The IPP was prepared through a series of consultations with leaders, elders and traditional authorities of the TCO Tacana I. Specific IPP activities are based on the "Strategy of Sustainable Development of the TCO-Tacana in the management of natural resources 2001 – 2005". This Strategy was prepared by the Indigenous Council of the Tacana People²⁴ (CIPTA), with the support of Wildlife Conservation Society (WCS/Bolivia), and primarily looks for the effective management of natural resources and the preservation of cultural identity. The first draft of the IPP was revised to incorporate observations related to its sustainability, and its relationship to the TCO's management strategy as well as ensuring proper mitigation of induced impacts. This phase counted on the support of organizations that work with the indigenous groups (i.e. WCS and CI) as well as direct meetings with CIPTA. However due to recent flooding, the Consejo de Corregidores has not been able to meet – they plan to meet before 15 May 2011 to review further the IPP, make revisions and provide their final approval by that date. The final IPP, if revised and acceptable to the Bank, will then be re-disclosed. The IPP includes, among others, activities aimed at: (i) strengthening management and protect the Tacana TCO in order to prevent invasions by new migrants; (ii) developing productive projects based in the use of natural resources, and (iii) strengthening the Tacana ethnic identity throughout improved communication processes and publications; (iv) adopting norms during road construction; (v) supporting the Esse

²⁴ CIPTA constitutes the representative body of 30 indigenous Tacana communities who inhabit the Iturrealde province, 20 of which are within the TCO Tacana.

Ejja community; and (vii) strengthening indigenous based tourism activities. A summary of the Plan, identifying each of the components proposed, as well as the key activities, indicators, and investment per component is presented in the table below.

Indigenous Peoples Development Plan Activities

#	Component	Sub-component	Key activities	Indicators	Budget US\$
1	Management and protection of TCO	1. Strengthen current management systems 2. Design of a sustainable system 3. Construction of intersections to access communities.	1. Equipment and maintenance of communication and transport systems. 2. Continue supporting incentives for hunters system 3. Construction of intersections	Communication equipment in operation. Trust Fund design of hunting control system improved. Construction of 8 paved intersections.	123,800.00
2	Productive projects based on sustainable use resources	1. Support to sustainable strategies	1. Community agro-forestry 3. Ecotourism	Project design documents completed	Budget from the Induced Impacts Study ²⁵
3	Norms during project execution	1. Preparation of norms for contractors 2. Strengthen the womens organization (CIMTA)	1. Adoption of norms for contractors' personnel entering the TCO. 2. Strengthening and Technical Assistance to women for collection and presentation of complaints. 3 Strengthening women's rights	Norms approved and adopted. Grievance mechanism in place. Number of complaints to authorities.	54,000.00
4	Communications and public consultations	1. Information (radio) 2. Public consultations	1. Development of programs and radio broadcasts. At least twice per year	Radio broadcasts issued. Public consultations made	23,400.00
5	Strengthening the Tacana's ethnic and cultural identity	1. Strengthen CIPTA's infrastructure 2. Translation and publication of the TACANA book. 3. Advertise legal and cultural values and biodiversity of TCO Tacana I. 4. Archaeological monitoring.	1. Design to be agreed with Asamblea de corregidores. 2. Development of architectural design. 3. Expansion and equipment of the CIPTA workplace. 4. Translation of the book (from German), its publication and dissemination. 6. Preparation of posters and radio broadcasts.	House of culture operational. 100 translated, edited and distributed books. Archeological survey report completed.	155.600.60

²⁵ Budget for item 2 "Productive projects based on sustainable use resources" is included in the overall US\$ 3 million budget allocated to address indirect environmental impacts.

6	Supporting the Esse Ejja community	Preparation of a support strategy that covers policies, options for physical territory, and organizational strengthening and social programs.	1. Hiring a consultancy to prepare the strategy. 2. Coordination with governmental and non-governmental agencies	Action Plan for the highly vulnerable and at risk people completed	100.000,00
7	Strengthening tourism capabilities	1. Training on tourism services. 2. Technical assistance on handicrafts	1. Training of touristic guides. 2. Training in hotel services and catering. 3. Training to women in promotion and marketing.	25 trained tour guides. 25 people trained in hotel services. 10 Tacana women trained in promotion and marketing.	78,750.00
8	Supporting social management and control	1. Technical assistance 2. support to CIPTA and CIMTA for their participation in the working groups to be created	1. Hiring technical assistance for the relationship with the supervision firms and for the complaints system.. 2. Implementation of community notebooks to record events and grievances	Technical assistance contracted. Community notebooks implemented. Number of meetings. Number of proposals presented.	21,600.00
9	Supporting youth educational processes	1. Construction of a student dorm in San Buenaventura	1. Architectural Design 2. Construction	Facility built and in service	63,000.00
10	Supporting other communities				38,850.00
Total					\$700,000.00

67. Regarding consultations, it is important to note that process showed different perceptions of the benefits and negative impacts of the road depending on the participants' occupation, gender or age. The majority recognize the benefits: better transport, ease of communication, access to markets, increased incomes and improved production. It is in the perceptions of the negative impacts (accidents, the invasion of new settlers, insecurity, deforestation, the extinction of wildlife and contamination) that the differences between the groups emerge. Generally, young people of both indigenous and non-indigenous descent regard the road in a positive light. Women express concerns over the impact of the road on their culture and ethnic identity, conflicts with new migrants and issues of highway safety. The consultations undertaken are summarized in the following table:

Consultations undertaken

Workshops	Date	Location	No. of Participants	Principal Participant
1 st Public Consultation	10/15/2010	San Buenaventura	22	7 municipal authorities
				1 national authority
				9 civil society
				5 OTB, or territorial organizations (<i>organizacion territorial de base</i>)
1 st Public Consultation	10/16/2010	Tumupasa	34	4 OTB authorities
				1 local authorities

				29 civil society
1 st Public Consultation	10/17/2010	Ixiamas	29	1 local authorities
				1 university
				24 civil society
				2 OTB authorities
				1 municipal authority
2 nd Public Consultation	1/14/2010	San Buenaventura	78	29 Authorities
				49 civil society and other
2 nd Public Consultation	1/15/2010	Tumupasa	50	10 Authorities
				40 civil society and other
2 nd Public Consultation	1/16/2010	Ixiamas	86	35 Authorities
				51 civil society and other
1 st Public Consultation Indigenous Communities	11/18/2010	Macahua Ixiamas		Representatives from the communities in TCO Tacana 1 (<i>Tierras comunitarias de origen</i>), magistrate (<i>corregidor</i>), OTB and local residents, CIPTA and CIMTA
1 st Public Consultation Indigenous Communities	11/19/2010	Tumupasa		Representatives from the communities in TCO Tacana 1 (<i>Tierras comunitarias de origen</i>), magistrate (<i>corregidor</i>), OTB and local residents, CIPTA and CIMTA
1 st Public Consultation Indigenous Communities	11/20/2010	Buena Vista- San Buenaventura		Representatives from the communities in TCO Tacana 1 (<i>Tierras comunitarias de origen</i>), magistrate (<i>corregidor</i>), OTB and local residents, CIPTA and CIMTA
2 nd Public Consultation Indigenous Communities	11/25/2010	Macahua Ixiamas		Representatives from the communities in TCO Tacana 1 (<i>Tierras comunitarias de origen</i>), magistrate (<i>corregidor</i>), OTB and local residents, CIPTA and CIMTA
2 nd Public Consultation Indigenous Communities	11/26/2010	Tumupasa		Representatives from the communities in TCO Tacana 1 (<i>Tierras comunitarias de origen</i>), magistrate (<i>corregidor</i>), OTB and local residents, CIPTA and CIMTA
2 nd Public Consultation Indigenous Communities	11/27/2010	Buena Vista - San Buenaventura		Representatives from the communities in TCO Tacana 1 (<i>Tierras comunitarias de origen</i>), magistrate (<i>corregidor</i>), OTB and local residents, CIPTA and CIMTA

Consultation on SA and IPP report with NGOs working in the region	02/04/11	La Paz		20 representatives from different NGOs.
Consultation of final IPP	Before May 15, 2011	Tumupasa		

68. The investments in the airport of Rurrenabaque will not have any adverse impacts on communities of Indigenous Peoples with the characteristics listed in OP 4.10. Indigenous Peoples will not be affected by land acquisition for the project or construction activities. Persons from these communities may benefit from the improved airport facilities as individual users, but not as a group, as envisioned in OP 4.10.

VI. ENVIRONMENT

69. This project was classified as Category B, which is the appropriate classification for projects whose potential adverse environmental impacts on human populations or environmentally important areas are site-specific, reversible, and can be readily mitigated. The following environmental safeguards have been activated: Environmental Assessment (OP 4.01), Natural Habitats (OP 4.04), Physical Cultural Resources (OP 4.11) and Forests (OP 4.36).

70. Potential adverse environmental impacts include: (i) change in the health and quality of forests; (ii) biodiversity loss; (iii) illegal logging; (iv) degradation or conversion of natural habitats, including disruption of hydrological dynamics; and (v) damage or destruction of physical cultural resources.

71. Three environmental assessment reports have been prepared by the client and reviewed by the Bank to meet OP 4.01 requirements: (i) an Environmental Impact Assessment (EIA) report, and its constituent Environmental Management Plan (EMP), for the San Buenaventura-Ixiamas road (Component 1), completed in 2009 and recently updated/upgraded in 2010; (ii) a report containing measures to mitigate the indirect environmental impacts of the road (Component 1); and (iii) an Environmental Assessment report, and its Environmental Management Plan, for the Rurrenabaque airport (Component 2).

72. The *Estudio de Factibilidad Técnico, Económica, Impacto Ambiental y Diseño Final de la Carretera San Buenaventura-Ixiamas* (“Technical and Economic Feasibility, Environmental Impact and Final Design Study for the San Buenaventura-Ixiamas Road”) contains an EIA for the San Buenaventura-Ixiamas road component. This EIA was completed in 2009 and reviewed by the Bank and updated by ABC, includes an EMP. The following environmental mitigation programs, contained in the original EIA report, to deal with direct environmental impacts during rehabilitation have been updated and substantively improved in terms of their objective, scope, training requirements, equipment and personnel, schedule and budget: (i) environmental and vial training, (ii) traffic control and environmental signaling, (iii) re-vegetation and erosion control, (iv) community relations, (v) archaeological resources restoration, (vi) flora and fauna preservation, (vii) fire prevention, (viii) forest protection, (ix) camp sites construction and

operation, (x) installation and operation of industrial areas, (xi) operation of machinery and equipment, and (xii) exploitation of borrow pits.

73. Indirect environmental effects have been identified and corresponding mitigation measures proposed in the report entitled *Mitigación de impactos ambientales potenciales, principalmente indirectos, asociados al proyecto de mejoramiento del camino San Buenaventura – Ixiamas* (“Mitigation of Potential Environmental Impacts, mainly indirect, Associated to the Rehabilitation of the Road San Buenaventura-Ixiamas”). Among mitigation measures proposed there are: (i) participatory environmental monitoring program (targeted to mitigation of direct environmental impacts), (ii) set up of a Unit for coordinating and supervising implementation of measures (iii to vi in this paragraph) to mitigate indirect environmental impacts, (iii) strengthening of ABT’s surveillance and control capacity, (iv) strengthening of SERNAP’s capacity to patrol the Madidi NP’s limits, (v) support productive initiatives that prevent the conversion of forests to agricultural lands, (vi) support to the establishment of the Municipal Preservation Area in Ixiamas, and (vii) establishment of a participatory working group on the project area’s sustainable territorial development to be led and convened by the Ministry for Development Planning.

74. The Vice Ministry for Public Investment and Foreign Financing (VIPFE) will be the governmental institution responsible for ensuring coordination among governmental agencies technically responsible on environmental and social management to be strengthened under project Component 3b (*Institutional Strengthening of ABC and AASANA, and other relevant entities*). Coordination meetings will be convened every four months and minutes will be prepared after each meeting. The Coordination Unit at VIPFE will be daily managed by a coordinator and an assistant. The designated coordinator will report to VIPFE’s senior management. This Unit will have the necessary equipment and logistics to effectively coordinate with agencies and institutions responsible for implementing the aforementioned measures. This Unit will have as main function ensuring that mitigation measures under responsibility of different institutions are timely and efficiently implemented. VIPFE will perform as coordinating and supervising body for implementation of measures (ii-vi) mentioned in the previous paragraph, whose design and implementation on the technical ground will be SERNAP’s and ABT’s responsibility, among other institutions.

75. Finally, project preparation included a number of meetings with a broad range of stakeholders in which environmental issues (potential environmental impacts and benefits) were discussed. In this sense, an informative meeting with conservation NGOs was held in La Paz on February 4, 2011. NGOs such as Conservation International (CI), The Nature Conservancy (TNC) and the Wildlife Conservation Society (WCS) are willing to help the GoB and ABC with high quality design of measures to mitigate indirect environmental impacts. The WCS representative, institution that has been working in the project area for a decade, stressed the importance of connectivity between the Madidi Integrated Management Areas and National Park and the TCO Tacana. Also, WCS stressed the issue of endemic fish species in the zones of borrow. According to this institution, this project is a very good opportunity to implement good practices and instruments. Conflicts and potential problems are minor but the GoB should pay attention to the sustainability of proposed measures to deal with mitigation of indirect environmental impacts. WCS also pointed out that it is important to understand how different

safeguard instruments interact among them (e.g. EIA, IPP, SA and RP). CI representatives stated that this is not a project that is going to cause high impacts. However, they were concerned about the exploitation of zones of borrows in rivers that could have significant impacts. Also, they were concerned about deadlines. They mentioned that the EIA for the road is outdated and has not included recent changes such as the sugar cane mill project. In their opinion, this last initiative can have synergy with the road project so there is information that might be updated. CI offered ABC all the information they have produced (e.g. mapping, study on deforestation trends in the project area, etc.) so final mitigation measures have the higher possible quality. Among other issues on which they expressed their concern were: (i) sustainability of some actions proposed in the Indigenous People Plan (e.g. the Cultural Centre), (ii) payments for avoided deforestation, and (iii) tourism development in an area considered the most important for indigenous tourism in Bolivia. The TNC representative informed that they have also produced documents in support to the Municipality of Ixiamas (e.g. the Municipal Forestry Management Plan). They consider the project area as a very emblematic one in terms of biodiversity. As a central point they mention the strengthening of the institutional relation between ABC and SERNAP. Tourism development was mentioned again as an important activity in terms of income generation within and outside the Madidi National Park. They also mentioned the possibility of working on compensation mechanisms for forest conservation.

Consultations Undertaken

Workshops	Date	Location	Number of Participants
1st Public Consultation	10/15/07	San Buenaventura	29
2nd Public Consultation	10/16/07	Tumupasa	44
3rd Public Consultation	10/17/07	Ixiamas	35
4th Public Consultation	1/14/08	San Buenaventura	61
5th Public Consultation	1/15/08	Tumupasa	20
6th Public Consultation	1/16/08	Ixiamas	86
Consultations during PRIPA and Social Assessment	2010	Ixiamas, Tumupasa, San Buenaventura	
Consultation on EA report with conservation NGOs	02/04/11	La Paz	20

Other Safeguard Policies

76. OP 4.09 on Pest Management is not triggered. Nevertheless, the amendment to the EA report and EMP for the road component, through the aforementioned assignments, will outline controls to ensure that any activities that propose to procure, store or handle pesticides are not supported by the project and include a description of actions that will be taken to minimize and manage impacts on any known physical cultural resources, as well as a description of chance find procedures that will be included in all works contracts.

77. ABC and AASANA will be responsible for monitoring the results indicators for Components 1 and 2 shown in Annex 1: Results Framework and Monitoring, including data collection on the indicators from project inception (baseline) until project closing. This will be the basis for six-monthly and annual project progress evaluation and reporting. ABC and AASANA also have the responsibility to evaluate the indicators at midterm review and at implementation completion. For reporting purposes, the agencies will assess any changes in values of the monitoring indicators compared to the results obtained the preceding year.

Comments, findings, and recommendations for improvements regarding the achievement of the target values for these indicators will be included in the six-month progress reports and the mid-term review report.

78. A consultant financed by the Credit will support ABC and AASANA in the development of a results monitoring and evaluation system that addresses the project goals and objectives. The consultant will also design procedures for data collection, evaluation and reporting, and will conduct a training program for both implementing agencies' staff responsible for M&E. Draft terms of reference were agreed during appraisal.

**Annex 4: Operational Risk Assessment Framework (ORAF)
BOLIVIA: National Roads and Airport Infrastructure Project**

Project Development Objective(s)	
To improve the year-round transitivity of the San Buenaventura – Ixiamas national road and improve the safety, security and operational reliability of the Rurrenabaque Airport.	
PDO Level Results Indicators:	<ol style="list-style-type: none"> 1. Reduce the transport costs to the San Buenaventura to Ixiamas road users, including vehicle operating costs and monetary value of travel time (US\$ cents/vehicle-km). 2. Increase the number of inbound and outbound flights actually operated at Rurrenabaque Airport as per the published schedule, in percentage of the total scheduled flights (% of total scheduled flights that take place).

Risk Category	Risk Rating	Risk Description	Proposed Mitigation Measure
1. Project Stakeholder Risks			
	Medium-L (Low Impact/High Likelihood)	<p>Project stakeholders could turn against the project if they conclude that the road improvement will increase illegal logging and/or have an adverse impact on the Madidi National Park.</p> <p>NGO's opposed to the development of the sugar industry may criticize</p>	<p>The Bank team has taken the stakeholders concerns into account at project design, including an assessment of the current situation regarding illegal logging. Parties engaged in preventing logging activity were identified and the following measures have been put in place to prevent transportation of illegal logs along the San Buena Ventura – Ixiamas (SBV-IXI) road: (i) strengthening of ABT and SERNAP; and (ii) construction of two checkpoints to be managed by ABT.</p> <p>SERNAP is one of the institutions participating in the project's action plan to reduce or eliminate illegal logging. SERNAP will be asked to inform the Bank of their actions on monitoring and enforcing the Park's protection measures and rules.</p> <p>The Government will assign an inter-institutional team of capable staff who will ensure that the project's</p>

Risk Category	Risk Rating	Risk Description	Proposed Mitigation Measure
		the Bank for supporting a project that will enable this development.	<p>environmental policies are implemented.</p> <p>ABC conducted a workshop with relevant NGOs and other stakeholders to present the project, including its potential benefits and impacts, and answer questions as needed (conclusions of the meeting are presented in Annex 3).</p> <p>Project preparation included six workshops with broad range of stakeholders (a total of 275 persons attended the workshops, two of each held in San Buenaventura, Tumupasa and Ixiamas).</p>
2. Implementing Agency Risks (including FM & PR Risks)			
	High (High Impact/High Likelihood)	<p>Project implementation may be affected by the low project management, administrative, and human resource capacity of the project's implementing agencies ABC and AASANA.</p> <p>AASANA's lack of exposure to the Bank's fiduciary requirements, is an additional risk.</p>	<p>ABC has experience executing credit programs with multilateral institutions (WB, IADB, CAF), including in the procurement of civil works and the engagement of consultants.</p> <p>The project design includes capacity building and training, and implementation support that would cover both executing agencies (ABC and AASANA) to provide them with the necessary tools to carry out their functions effectively in order to achieve project objectives. In addition it will support AASANA to quickly become engaged and conversant in Bank policies and processes.</p> <p>The Bank Team conducted a fiduciary and safeguards capacity review of ABC and AASANA. The review served as a basis for determining the required support and capacity strengthening measures amongst the designated counterpart staff. The review also assisted in establishing agreements on adjustments and additional mitigating measures. For ABC the review focused on establishing clear roles and responsibilities, adequate segregation of duties and key controls, and</p>

Risk Category	Risk Rating	Risk Description	Proposed Mitigation Measure
			<p>accountability arrangements. For AASANA it focused on defining effective operational arrangements.</p> <p>If it were necessary to strengthen the executing agencies' fiduciary capacity, consultants with vast experience in Bank procurement policy and financial management will be engaged by ABC and AASANA to monitor procurement activities shortly after project effectiveness (currently ABC has a procurement unit, whereas AASANA decided to designate 2 staff to be trained on procurement. Those staff will have the time allocation required to undertake this task).</p> <p>Regarding safeguards, the capacity review encompassed ABC, AASANA, SERNAP and ABT. The review served as a basis for determining the required support and capacity strengthening measures amongst the designated counterpart staff. The review also assisted in establishing agreements on adjustments and additional mitigating measures.</p> <p>The Bank team will exercise enhanced supervision of project implementation focused on technical, safeguards and fiduciary aspects of the project and assisted by local and regional Bank staff. Full supervision missions will be performed quarterly.</p> <p>ABC and AASANA will be required to present a counterpart team with staff for ABC and AASANA (minimally manned by specialists in financial management, procurement, and social, environmental, and technical aspects). This core team will be responsible for the preparation and implementation tasks of the project. The chore team for both entities was agreed at appraisal, and is described in Annex 3.</p>

Risk Category	Risk Rating	Risk Description	Proposed Mitigation Measure
3. Project Risks			
Design	High (High Impact/High Likelihood)	Risk that the expected generated traffic does not materialize as specified during the life of the project.	<p>A large portion of the expected generated traffic should materialize as a result of the construction and development of a large agro industrial complex north of San Buenaventura, which has been recently approved by the national government via executive order (<i>Decreto Supremo 0637</i>).</p> <p>The main driver of demand at the airport is the fast growing segment of ecotourism. The airport in turn is a major prerequisite for further promotion of tourism in the region.</p>
Social & Environmental	Medium-I (High Impact/Low Likelihood)	<p>Road improvements could facilitate the transportation of wood logged illegally from the Madidi Park or its buffer zone. Road improvements could also increase pressures on the park caused by uncontrolled tourism and the extension of the agricultural frontier. Colonist from the highlands could displace native communities.</p> <p>Households affected by land acquisition for the road and the airport could be impoverished if they are not compensated adequately.</p>	<p>Due to the sensitive nature of the project, safeguards oversight will remain the responsibility of the Bank's Regional Safeguards Advisor.</p> <p>The following safeguard policies have been activated:</p> <ol style="list-style-type: none"> 1) Environmental Assessment 2) Natural Habitats 3) Forests 4) Indigenous Peoples 5) Physical Cultural Resources 6) Involuntary Resettlement <p>The contractor for the SBV-IXI road improvement will have specific social and environmental responsibilities. Contractors' experience in and commitment towards safeguards as well as his team composition will be evaluated. Supervision of the Contractor's activities will be the task of the Supervision Engineer who will be required to provide environmental and social monitoring expertise.</p> <p>A grievance mechanism is included in the Project's GAC Action Plan. ABC will put in place the resources to address complaints from the people that feel affected by the SBV-IXI road improvement activities. The</p>

Risk Category	Risk Rating	Risk Description	Proposed Mitigation Measure
		<p>ABC and AASANA are understaffed and are not fully familiar with the Bank's safeguard policies (social and environmental).</p> <p>Limited institutional capacity in SERNAP, ABT in the prefecture of La Paz and more specifically in the project's area of influence.</p> <p>There is only partial coordination between ABC, SERNAP, ABT, and the Ministry of Environment for mitigation of direct and indirect environmental impacts potentially induced by the project's SBV-IXI road.</p> <p>Poor environmental management of the productive activities planned in the project zone of influence, most salient the sugar cane plantation and the sugar mills could cause environmental degradation.</p> <p>NGOs supportive of indigenous movements' may express discontent with the Bank's support of a major road improvement in relation to the agro-industrial complex.</p>	<p>mechanism will be put in place from the very beginning of the project.</p> <p>The project design includes capacity building and training, and implementation support that would cover both executing agencies (ABC and AASANA) to provide them with the necessary tools to carry out their functions effectively on social and environmental matters.</p> <p>The sugarcane plantations and sugar mills will obtain environmental licenses according to the national regulations.</p> <p>The project seeks to establish coordination between ABC, SERNAP and ABT and other agencies for effective arrangements for mitigation of direct and indirect environmental impacts potentially induced by the project.</p> <p>The project will support the establishment and operation of a participatory working group for sustainable territorial development in the area. The Ministry of Development Planning will lead the group.</p>

Risk Category	Risk Rating	Risk Description	Proposed Mitigation Measure
Program & Donor	Medium-I (High Impact/Low Likelihood)	The construction of the Rio Beni Bridge at Rurrenabaque- San Buenaventura is unduly delayed.	The Bank and the IADB are having frequent meetings to be informed of progress on the Bridge's financial and procurement arrangements.
Delivery Quality	Medium-I (High Impact/Low Likelihood)	<p>Insufficient resources are allocated by ABC and AASANA for maintenance of the improved SBV – IXI road and Rurrenabaque Airport infrastructure.</p> <p>Airport user charges and fees raised are insufficient to cover its operational and maintenance needs.</p> <p>Overloading caused by heavy truck axle loads exceeding the legal limit damages the SBV – IXI road pavement and forces increases in the cost of maintenance.</p>	<p>Public expenditures allocated to routine road maintenance are approximately US\$49 million;. About 85% of the primary road network received routine maintenance through ABCs contracts with microenterprises.</p> <p>The Bank team will seek an agreement with ABC on proper arrangements to sustain the budget needed for routine and periodic maintenance of the SBV – IXI road.</p> <p>Local governments and the communities served by the SBV – IXI road and Rurrenabaque Airport have been waiting for these infrastructures for a very long time and would be strong advocates for proper preservation to be performed.</p> <p>The Bank team will seek an agreement with AASANA for using revenues from the increased air traffic to be used to finance maintenance of the runway, passenger and cargo facilities, and ensure safe operations.</p> <p>Project design aims to develop appropriate support the establishment of effective Heavy Axle Loads Control in the SBV – IXI road to avoid damage and additional maintenance costs.</p>

Overall Risk Rating at Preparation	Overall Risk Rating During Implementation	Comments
Medium - I	High	

Annex 5: Implementation Support Plan

BOLIVIA: National Roads and Airport Infrastructure Project

Strategy and approach for Implementation Support

79. The strategy for Implementation Support (IS) has been developed based on the nature of the project and its risk profile. It will aim at making implementation support to the client more flexible and efficient, and will focus on implementation of the risk mitigation measures defined in the ORAF.

- Procurement: IS for procurement will include: (i) providing training to executing agencies (ABC and AASANA); (ii) reviewing procurement documents and providing timely feedback to the Procurement Specialists in the executing agencies; (iii) providing detailed guidance on the Bank's Procurement Guidelines to the Procurement Specialist within the executing agencies; and (iv) monitoring procurement progress against the detailed Procurement Plan, which will be updated once per year (or as required) to reflect project implementation needs and improvements in institutional capacity.
- Financial Management: Supervision will review the project's financial management system, including but not limited to accounting, reporting and internal controls.
- Environmental and Social Safeguards: The Bank team will supervise the implementation of the agreed Environmental and Social Management Plans, and PRIPA and will provide guidance to ABC and AASANA to address any issues as they may arise.

Implementation Support Plan

80. The Bank team has representatives both in HQ and in La Paz office, in order to ensure timely, efficient and effective implementation support to the client. Full supervision and field visits will be carried out semi-annually with additional four partial supervision missions for the first two years. Detailed inputs from the Bank team are outlined below:

- Technical inputs: Engineering and supervision of technical designs are required to review bid documents to ensure fair competition through proper technical specifications and fair assessment of the technical aspects of the bids. During preparation and construction technical supervision is required to ensure technical contractual obligations are met. The teams' transport engineers will conduct site visits on quarterly basis initially (for the road) after the works start. Airport Specialist will visit the airport as required when AASANA implements this component of the Project.
- Fiduciary requirements and inputs: Training will be provided by the Bank's financial management specialist and procurement specialist during project implementation, The team will also help both ABC and AASANA identify capacity building needs to strengthen their financial management capacities and to improve procurement management efficiency. Formal supervision of financial management will be carried out semi-annually, while procurement supervision will be carried out on a timely basis as required by the client.
- Safeguards: The Bank will closely follow the compliance with environmental and social safeguards. For the case of ABC, the entity will hire one environmental specialist and a

social specialist throughout project implementation. Field visits, with the participation of ABC and Bank’s specialist, will take place on semi-annual basis at minimum.

81. The main focus of implementation support is summarized below.

Time	Focus	Resources Estimate	Partner Role
Year 1	Technical and procurement review of the bidding documents	Transport Engineer(s) 10 SW Airport Specialist 4 SW Procurement Specialist(s) 6 SW	Joint Technical review of designs and bidding documents (ABC and AASANA)
	Procurement Training	Procurement Specialist 2 SW	
	FM supervision and training	FM specialist 6 SW	
	Social supervision and training	Social Specialist(s) 5 SW Resettlement Specialist 5 SW	
	Environmental supervision and training	Environmental Specialist(s) 5 SW	
	Institutional arrangements and project supervision	Operation officer 8 SW	
	Team leadership	TTL 12 SW	
Years 2 to 5 (SW per year)	Project implementation and execution	Transport Engineer 6 SW Airport Specialist 4 SW Procurement Specialist 4 SW Operation Officer 4 SW	
	Environmental and social monitoring and reporting	Environmental Specialist(s) 5 SW Social Specialist(s) 5 SW	
	Financial management disbursement and reporting	FM Specialist 4 SW	
	Task leadership	TTL 10 SW	

Note: SW – Staff-Week

II. Skills Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips
Operations Officer	8 SW first year 4 SW year 2-5	Field trip as required
Transport Engineer	10 SW first year 6 SW year 2-5	Field trips as required
Airport Specialist	4 SW first year 4 SW during component implementation	Field trip as required
Procurement Specialist	8 SW first year 4 SW year 2-5	Field trip as required
Financial Management Specialist	6 SW first year 4 SW year 2-5	Field trip as required
Social Specialist	5 SW per year	Two
Environmental Specialist	5 SW per year	Two
Resettlement Specialist	4 SW until required	Field trip as required
Communication Specialist	2 SW when required	Field trip as required
Task Team Leader	10 SW per year	Two

Annex 6: Team Composition
BOLIVIA: National Roads and Airport Infrastructure Project

World Bank staff and consultants who worked on the project

Name	Title	Unit
Gylfi Palsson	Task Team Leader, Lead Transport Specialist	LCSTR
Antonio Christian D'Amelj	Counsel	LEGLA
Armin Morz	Aviation Expert, Consultant	LCSTR
Cecilia Corvalan	Sr. Transport Economist	LCSTR
Hector Mansilla	Road Engineer, Consultant	LCSTR
Jimena Garrote	Counsel	LEGLA
Joaquín Aguilar	Infrastructure Consultant	LCSTR
Jorge Treviño	Rural Development Consultant	LCSAR
José Rasmussen	Procurement Specialist	LCSPT
Jose Zevallos	Sr. Social Development Specialist	LCSSO
Licette Moncayo	Program Assistant	LCSTR
Lourdes Linares	Sr. Financial Management Specialist	LCSFM
Maria Margarita Nunez	Sr. Highway Engineer	LCSTR
Mariana Margarita Montiel	Sr. Counsel	LEGLA
Martin Huici	Economist Consultant	LCSTR
Patricia Hoyes	Sr. Finance Officer	CTRFC
Rafael Ferrera	Bridge Engineer, Consultant	LCSTR
Raul Tolmos	Environmental Specialist	LCSEN
Ruth Llanos	Social Development and Civil Society Specialist	LCSSO
Susana Perez	Team Support	LCCBO
Tomas Del Carril	Bridge Engineer, Consultant	LCSTR

