



# Board of Executive Directors

## Simplified Procedure

On or after 15 December 2010

PR-3674  
30 November 2010  
Original: Spanish

**To:** The Board of Executive Directors

**From:** The Secretary

**Subject:** Bolivia. Proposal for a loan for the “Preinvestment Program for Strategic Transportation Projects”

**Basic Information:**

Loan type .....	Specific Investment Operation (ESP)
Borrower .....	Plurinational State of Bolivia
Amount .....	up to US\$11,060,000
Source .....	Single Currency Facility of the Ordinary Capital
Amount .....	up to US\$4,740,000
Source .....	Fund for Special Operations

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**Remarks:** This operation is included in document GN-2576, “2010 Operational Program Report (OPR)”, approved by the Board of Executive Directors on 3 August 2010. Additionally, its amount does not exceed the ceiling established for Group D countries; therefore, it qualifies for approval by simplified procedure.

The financing for this operation corresponds to a parallel loan within the framework of the multilateral debt relief and concessional finance reform of the Bank.

**Reference:** GN-1838-1(7/94), DR-398-9(9/10)



DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

## **BOLIVIA**

### **PREINVESTMENT PROGRAM FOR STRATEGIC TRANSPORTATION PROJECTS**

**(BO-L1056)**

### **LOAN PROPOSAL**

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ELECTRONIC LINKS	
<b>REQUIRED</b>	
1. Annual work plans	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM= 35385254">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM= 35385254</a>
2. Monitoring and evaluation arrangements	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35386206">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35386206</a>
3. Procurement plan	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35385273">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35385273</a>
4. Safeguard Screening Form	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35385440">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35385440</a>
<b>OPTIONAL</b>	
1. Maps	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35402912">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35402912</a>
2. Program cost table	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35385864">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=35385864</a>

## **ABBREVIATIONS**

ABC	Administradora Boliviana de Carreteras [Bolivian Highway Administration]
FSO	Fund for Special Operations
LIBOR	London Interbank Offered Rate
MOPSV	Ministry of Public Works, Services, and Housing
OC	Ordinary Capital
PND	National Development Plan
RVF	Red Vial Fundamental [Primary Road Network]
UTF	Unidad Técnica de Ferrocarriles [Railway Technical Unit]
VMT	Viceministerio de Transportes [Office of the Deputy Minister for Transportation]

## PROGRAM SUMMARY

### BOLIVIA PREINVESTMENT PROGRAM FOR STRATEGIC TRANSPORTATION PROJECTS

(BO-L1056)

Financial Terms and Conditions					
<b>Borrower:</b> Plurinational State of Bolivia <b>Executing agency:</b> Ministry of Public Works, Services, and Housing (MOPSV), acting through its Office of the Deputy Minister of Transportation (VMT) and the Bolivian Highway Administration (ABC)			<b>Financing</b>	<b>OC</b>	<b>FSO</b>
			Amortization period:	30 years	40 years
			Grace period:	6 years	40 years
			Disbursement period:	4 years	4 years
<b>Source</b>	<b>Amount (US\$)</b>	<b>%</b>	Interest rate:	LIBOR fixed	0.25%
IDB (FSO)	4,740,000	30	Inspection and supervision fee:	*	N/A
IDB (Ordinary Capital)	11,060,000	70	Credit fee:	*	N/A
Local			Currency:	U.S. dollars from the Single Currency Facility	U.S. dollars
Total	<b>15,800,000</b>	<b>100</b>			
Program at a Glance					
<b>Program objective/description:</b> The program's objective is to (i) determine the viability of the railway interconnection and the interoceanic corridor by conducting technical, economic, financial, and social and environmental studies contributing to construction of the railway interconnection; and (ii) develop a portfolio of projects for the Primary Road Network (RVF), to give continuity to the improvement and expansion program.					
<b>Special contractual clauses:</b> (i) As a condition precedent to the first disbursement of resources under component 2 (roadway studies), the borrower and the ABC will have signed and implemented a subsidiary agreement for program execution under the terms agreed with the Bank (paragraph 2.8); and (ii) The disbursement of resources allocated to component 1 (railway studies) will be contingent upon the VMT's submittal of evidence that it has formed the Railway Technical Unit (UTF), allocated the resources and personnel needed for it to operate, and begun to hire the specialists. Both matters require the Bank's prior no objection (paragraph 2.9).					
<b>Exceptions to Bank policies:</b> None. <b>Special considerations:</b> None.					
<b>Program consistent with country strategy:</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <b>Program qualifies as:</b> SEQ <input type="checkbox"/> PTI <input type="checkbox"/> Sector <input type="checkbox"/> Geographic <input type="checkbox"/> Headcount <input type="checkbox"/>					

\* The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with the applicable provisions of the Bank's policy on lending rate methodology for Ordinary Capital loans. In no case will the credit fee exceed 0.75% or the inspection and supervision fee exceed, in a given six-month period, the amount that would result from applying 1% to the loan amount divided by the number of six-month periods included in the original disbursement period.

## I. DESCRIPTION AND RESULTS MONITORING

### A. Background, problem to be addressed, strategy, and rationale

- 1.1 Bolivia has challenging topographical conditions, low population density, and a geographically dispersed economic base built on the primary sector. This results in high operating costs and small scales of production, which combine to make transportation costs higher than in other countries of the region. The country's landlocked status also increases the cost of access to major markets.
- 1.2 Against this backdrop, the transportation sector operates under the following limitations: (i) high transportation costs exacerbated by insufficient/poor infrastructure, border crossings, and an inefficient freight industry; (ii) an extreme climate that has an adverse effect on infrastructure conditions, contrasting with the need for uninterrupted serviceability on all communication routes; (iii) the country's size and dispersed population pattern; (iv) high construction costs due to rugged topography; (v) limited availability of resources and heavy dependence on external financing; and (vi) sweeping institutional changes and a political/territorial structure that grants autonomy to subnational levels of government.
- 1.3 The transportation system includes all modes of transportation. For overland transport, the use of motor vehicles predominates in carrying both passengers and freight, although the Bolivian government wants to expand the coverage and connectivity of the railway system as a way of providing transportation alternatives. The railway system consists of two networks: the Andean railway network, which serves the western part of the country and has hubs in the cities of Viacha, Oruro, and Cochabamba; and the eastern network, which serves the eastern part of the country and has its hub in the city of Santa Cruz. These networks are disconnected from one another, with some 400 kilometers separating the two. Each is operated by a concessionaire.
- 1.4 Motor vehicle transportation relies on a system of 74,740 kilometers of roads, of which 15,963 kilometers belong to the Primary Roadway Network (RVF) and are managed by the Bolivian Highway Administration (ABC). Paved roads account for only 30% of all roads managed by the ABC, gravel roads 49%, and dirt roads 21%. These figures are indicative of the effort that the country must put forth to improve connectivity and serviceability.
- 1.5 **Problem to be addressed.** Bolivia has a structural problem in that it lacks sufficient overland transportation infrastructure for fast, reliable movement between different parts of the country and between it and neighboring countries. With the low number of paved roads in good condition, as well as the tremendous challenges posed by topographical conditions, the cost of transporting goods is high compared to other countries of the region. The resulting extra costs and prolonged travel times in transporting freight and passengers make Bolivia less competitive. Because the Andean and eastern railway networks are not connected, choices are few and demand cannot be met flexibly, with motor vehicles being the only option for mass transportation. Not only is land transportation inadequate, with high costs and long



travel times, but levels of greenhouse gas emissions and other air pollutants are high. Building the railway interconnection and expanding the portion of the road network in good condition will help establish a new east-west corridor linking the Atlantic and Pacific coastlines—giving Bolivia a prominent role in regional trade—and will help integrate the country's regions and people and provide Bolivians with new opportunities.

- 1.6 **The sector's institutional landscape.** The apex agency is the Ministry of Public Works, Services, and Housing (MOPSV), whose Office of the Deputy Minister for Transportation (VMT) governs the transportation sector. The VMT, in turn, consists of two departments, the Department for Land, River, and Lake Transportation and the Department for Air Transportation. The VMT's responsibilities include proposing policies and standards and implementing sector plans for land, sea, river, lake, railway, and air transportation under the country's national development strategies, to ensure that people have access to a modally integrated transportation system. Since the country currently lacks a full-capacity national railway company (there is only a residual entity), the VMT is taking it upon itself to promote railway infrastructure development, with multimodal initiatives and plans to connect the country's eastern and western railway networks.
- 1.7 These networks are currently operated by two private companies. The Andean network, with 2,276 kilometers of railway, is run by Empresa Ferrovial Andina S.A., held by Bolivian Railways Investment, pension fund managers Futuro de Bolivia S.A. and Previsión B.B.V. S.A., and former employees with a small stake in the company. Most freight transported on this network is for international commerce, and predominantly consists of exports of mining products, soybeans, grains, and containers; the volume transported is around 1.2 million tons. Most mining exports reach port via the Chilean railway system.
- 1.8 The eastern network, with 1,426 kilometers of railway, is run by Empresa Ferrovial Oriental S.A., in which Trenes Continental (UniRail, Genesee & Wyoming, and Fondo de Inversiones I.F.C.) owns a 50% stake and Bolivian pension funds own the remaining 50%. Most freight transport on this network serves import and export clients, and mainly consists of soybeans and soy products as well as wheat, flour, petroleum products, cement, and construction materials. This network currently transports 1.5 million tons of freight, with a target of 2 million tons by 2012.
- 1.9 The Bolivian Highway Administration (ABC) is an independent agency under public law reporting to the MOPSV with its own legal status and assets and technical, administrative, and economic/financial autonomy of indefinite duration. Law 3507, which created the ABC, was passed on 27 October 2006 and published in the Official Gazette of 6 November 2006, upon which it went into effect and the ABC took on planning and management of the RVF as part of the process of strengthening decentralization.

- 1.10 Executive Decree 28946 of 25 November 2006 provided partial regulations for the law that created the ABC. It established, *inter alia*, the ABC's legal status, institutional mission, powers and responsibilities, and organizational structure. The ABC's duties include administering the toll system and weight and size restrictions for the RVF through Vías Bolivia, a decentralized public agency that reports to the ABC and was created through Executive Decree 28948 of 25 November 2006.
- 1.11 The ABC is currently executing five Bank loans: (i) Santa Cruz–Puerto Suárez Corridor Project (1101/SF-BO); (ii) Northern Corridor Highway Program, La Paz–Caranavi Segment (1597/SF-BO); (iii) Northern Corridor Highway Improvement Program, Santa Bárbara–Rurrenabaque Section (1833/SF-BO); (iv) Performance-Based Road Maintenance (1940/BL-BO); and (v) Road Conservation in the East-West Corridor (2233/BL-BO). Another operation, which is being executed by the Bank's Environmental Safeguards Unit (VPS/ESG), is related to a roadway project: Environmental and Social Protection in the Santa Cruz–Puerto Suárez Corridor (loan 1099/SF-BO).
- 1.12 **The country's strategy.** The National Development Plan (PND) and the 2010–2015 Government Plan proposed a new public policy framework to ensure greater growth by increasing productivity and competitiveness and greater social equity by combating poverty while maintaining macroeconomic stability in the real sector and on the fiscal, external, and monetary/exchange rate fronts. PND activities are grouped around four main pillars: (i) *Bolivia Digna* (“Dignified Bolivia”), a social and communitarian program; (ii) *Bolivia Democrática* (“Democratic Bolivia”), for social inclusion and a redesigned State institutional structure; (iii) *Bolivia Productiva* (“Productive Bolivia”), an economic program; and (iv) *Bolivia Soberana* (“Sovereign Bolivia”), for the country's international relations.
- 1.13 For productivity, the PND seeks to give priority support to various strategic sectors of the economy, including the transportation sector, highlighting the State's new role as a major agent for development. The PND subordinates the objective of transportation infrastructure to the attainment of poverty reduction targets by creating productive jobs. While identifying and proposing the transportation sector as a major driving force for economic development, the PND also acknowledges its current structural weaknesses and states the need for intervention in all modes of transportation. Consequently, the PND calls for the government to promote efficient investment in road infrastructure, seeking better internal and external integration of the country so as to involve the entire population in productive activity and in markets and services, and to achieve strategic, competitive access to export markets for its products.
- 1.14 The strategy set forth in the Government Plan describes intervention in the roadway system in terms of: (i) linking department capitals via paved roads; (ii) developing integration corridors to better connect Bolivia with neighboring countries and the rest of the world; (iii) assigning priority to connectivity with border areas as part of the process of territorial integration and international linkages; and (iv) improving road infrastructure in productive areas as a way of making them more competitive.

- 1.15 The ABC's role with regard to the RVF consists of implementing a: (i) preservation program; and (ii) improvement and expansion program. The preservation program involves various levels of intervention, from routine and periodic maintenance and straightforward projects (improvements) to more costly and complicated interventions to restore deteriorated roads (rehabilitation). The government's policy is that the first level of intervention (routine and periodic maintenance, mainly) should be self-financed. The improvement and expansion program seeks to restore roadways whose pavement is too deteriorated to repair through periodic maintenance, to extend the life of highways for as long as possible before they need to be improved or rehabilitated, and to upgrade roads (from dirt or gravel roads to paved roads). These interventions will be financed primarily with international cooperation funds.
- 1.16 The government's priorities for transportation infrastructure include interconnecting the Andean and eastern railway networks. To begin, the government formed an ad hoc commission that is studying the viability of the interconnection.<sup>1</sup> The analytical and conceptual study being conducted is helping authorities assess the challenges associated with building, implementing, and providing railway services for an interconnection with enormous impacts at the national and regional levels.
- 1.17 **The Bank's strategy.** One of the objectives of the Bank's current country strategy with Bolivia (document GN-2485-2) is to address the challenges of economic growth, employment, and governance by promoting productivity, competitiveness, and productive infrastructure as needed to promote balanced and sustained economic growth. This program is consistent with these criteria. The works designed under this program will help reduce transportation costs and travel times, preserve and expand the country's road assets, maintain the serviceability and functionality of the RVF, and integrate the railway networks, thereby completing the interoceanic corridor, which will become the country's main railway corridor and an important link for integration with the Southern Cone countries. This program is also consistent with the general and strategic objectives of the Bank's institutional strategy for the Ninth General Capital Increase, which sets "competitive regional and global international integration" as one of its sector priorities.
- 1.18 **Rationale for the Bank's involvement.** The Bolivian government's infrastructure priorities include improving the transportation system, as set out in the Government Plan's lines of action. Consistent with this priority, the Bank is seeking to support the government in improving the quality of decisions regarding investment in high-value strategic infrastructure, so that they further the country's development strategy.

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<sup>1</sup> *Estudio de identificación: Corredor ferroviario bioceánico central* [Identification Study: Central Interoceanic Railway Corridor]. November 2010.

## **B. Objective and components**

- 1.19 **Objectives.** The program's objective is to (i) determine the viability of the railway interconnection and the interoceanic corridor by conducting technical, economic, financial, and social and environmental studies contributing to construction of this interconnection; and (ii) develop a portfolio of projects for the Primary Road Network (RVF), to give continuity to the ABC's improvement and expansion program.
- 1.20 The railway and roadway studies supported by the program will, upon completion of the associated projects, help to: (i) reduce transportation costs and travel times by interconnecting railway networks and improving road serviceability, thereby making the country's productive apparatus more competitive; (ii) make road corridors safer, thereby reducing accident rates; (iii) preserve the country's road assets by rehabilitating segments of the RVF; and (iv) make the RVF more serviceable and functional.
- 1.21 **Component 1. Railway studies.** The interconnection of the eastern and western railway networks is a highly complex and costly project. Its rationale lies in the potential to transport large volumes of freight, particularly iron ore, from production sites (El Mutún) to export ports on the Pacific coast. This requires simultaneous work in multiple areas, each of them critical to success. This component will help the Bolivian government acquire the technical knowledge it needs to make a sound decision as to whether to build the railway interconnection, and to identify the best option along with the associated costs, risks, and challenges, and to understand the technical, institutional, and financial capabilities needed to carry out the project.
- 1.22 This component will include studies to analyze the viability of the railway interconnection and the interoceanic corridor. These studies will cover a wide range of topics, including review and in-depth analysis of medium- and long-term demand; routing options; the operational model to be implemented; technical specifications and investment costs for track, signaling, communications, and other equipment; technical specifications and additional investment costs for infrastructure not directly associated with the interconnection; technical specifications, scaling, and costs of rolling stock; railway operation costs; financial projections; sources of financing for the corridor's various components; economic and social appraisal; environmental analyses of routing options and strategic environmental assessment and environmental impact study for the selected route; estimation of changes in the transportation matrix; institutional arrangements needed to execute the works and operate the railway system; necessary commercial and international agreements; and regulatory matters.
- 1.23 The railway component will be carried out in two stages. The first stage will consist of a strategic analysis of the interconnection, looking at various technical and functional considerations such as potential demand, the operational model, investment and operating costs, and technical specifications. The scope of this study

includes an environmental analysis of options, along with a prefeasibility study of each option. This study will be based on the technical and conceptual information and design that the Bolivian government and the Office of the Deputy Minister for Transportation (VMT) have developed as part of the basic information and identification exercise for the interconnection, as reflected in the identification study (paragraph 1.15), which has helped the authorities make preliminary decisions about the characteristics of the interconnection, which this component will help to review and confirm, as appropriate.

- 1.24 The findings of these initial studies will enable the government to gather enough information to make an informed decision as to the viability of the railway interconnection and, if viable, as to which of the analyzed options is best. These studies will include a social outreach component, to learn the views of civil society and make the best decision for all project stakeholders.
- 1.25 The second stage will consist of various technical studies, tentatively identified as: (i) an analysis of routing options for the selected railway corridor; (ii) a strategic environmental assessment and environmental impact study for the selected route; (iii) a preliminary basic engineering study for the selected route; and (iv) other studies relating to management and operation of the railway interconnection.
- 1.26 To implement this component, the VMT will form an executing unit—the Railway Technical Unit (UTF)—as a starting point for the technical capacity-building needed to carry out an investment program of the magnitude of this interconnection. The UTF will have staff with the following basic professional profiles and areas of technical expertise: (i) the general coordinator will preferably be a generalist in the area of rail freight transportation projects and have experience with technical and economic issues; (ii) railway routing; (iii) rail freight operations; (iv) infrastructure; (v) economics of transportation, railway costs, and project appraisal; (vi) financial projections; and (vii) social and environmental issues. This component will finance the UTF through its first year, including professional fees, operating expenses, and basic equipment costs.
- 1.27 **Component 2. Roadway studies.** This component will help the ABC develop a portfolio of road projects to help guide and ensure predictability in its RVF expansion and improvement plan by financing technical engineering, economic, and social and environmental studies. The eligibility criteria for roadways coincide with the priorities of the Government Plan (paragraph 1.14).<sup>2</sup> The following road segments have been tentatively identified:
  - a. The 110-kilometer Nazacara–Ito IV segment, located in the department of La Paz in western Bolivia, is part of the La Paz–Viacha–Kollo–Nazacara–Ito IV highway on the Peruvian border. It would be the most direct connection from the western region, particularly from the city of La Paz, to the Peruvian

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<sup>2</sup> Furthermore, in accordance with the procedures set forth in the ABC's Environmental and Social Management Manual, roadways must have an environmental classification form in order to be eligible.

city of Tacna. The topography varies from flat to rolling. The studies would include designing a border facility with areas for customs, immigration, taxes, toll collection, and a vehicle weighing station.

- b. The 330-kilometer Trinidad–Puerto Ustarez segment, located in the department of Beni in northeastern Bolivia, starts from the city of Trinidad and heads northward parallel to the Mamoré River, passing through the towns of San Pedro, San Ramón, San Joaquín, and Puerto Siles, and then changes direction to head east to Puerto Ustárez on the Brazilian border across from the Brazilian town of Costa Márquez, on the Iténez River. The topography is flat. The studies would include designing the border facility for government departments such as customs, immigration, and vehicle inspection.
- c. The 100-kilometer Hornillos–Impora–Las Carreras segment is located in the departments of Potosí, Chuquisaca, and Tarija in the south. It runs west to east and is the only piece yet to be built in the center-to-south corridor linking the department of Potosí to the department of Tarija and ending at the border with Paraguay. This segment also links the two main highways that run from southern Bolivia to Argentina. The topography is mountainous.
- d. The 165-kilometer Villazón–Padcaya segment, located in the departments of Potosí and Tarija in the south, crosses various mountain ranges, with some segments of rolling terrain near Villazón. This segment turns into RVF Route 28, which laterally connects RVF 1, known as the *Ruta de los Libertadores*, between Potosí and Tarija, to RVF 14, joining the town of Villazón (on the Argentine border) with the town of Padcaya as a midway stop between Tarija and Fortín Campero (on the Argentine border).
- e. The 76-kilometer Entre Ríos–Palos Blancos segment, located in the department of Tarija, is one of the roadways prioritized for development, as it will connect the department’s main cities: Tarija, Entre Ríos, Villamontes, Yacuiba, and Caraparí. The Entre Ríos–Palos Blancos highway is economically and politically important to the department, as it is key to achieving harmonious development in its various regions and pursuing productive projects that integrate the highlands, valleys, and tropical areas, enabling its residents improve their quality of life.
- f. The 81-kilometer San Pedro–La Enconada segment is located in the department of Santa Cruz. Improvements and construction work along this segment should help integrate regions with high potential for production, industry, and tourism; facilitate commerce between these regions; and develop the highway’s direct service area, which has grown significantly in recent years.
- g. The 187-kilometer Boyuibe–El Espino segment covers a predominantly flat topography between the departments of Santa Cruz and Chuquisaca. This segment links the Chaco region with the rest of the country and with Paraguay.

- h. The 97-kilometer Huarina–Escoma segment is located in the department of La Paz and the provinces of Omasuyos and Camacho. This segment is part of RVF F-016, which runs from Huarina in La Paz to Porvenir in Pando. It is an essential link to the northern part of La Paz, joining the communities of Italaque, Charazani, Pumasani, Chuma, Ayata, Camata, Pelechuco, and Apolo.

### C. Cost and financing

- 1.28 The total cost of the program is US\$15.8 million, of which US\$6.7 million will be for the railway component, US\$9 million for the roadway component, and US\$100,000 for financial audits. The program does not include counterpart resources. The table below shows program costs (in thousands of U.S. dollars).

Components	Bank	Total
Component 1. Railway studies	6,700	6,700
Component 2. Roadway studies	9,000	9,000
Financial audits	100	100
<b>Total</b>	<b>15,800</b>	<b>15,800</b>

### D. Results framework and key indicators

- 1.29 **Key outcome indicators.** As this is a reimbursable technical-cooperation loan operation, it is expected to contribute and provide effective support to the Government of Bolivia in the complex task of determining the best option for the railway interconnection and, through the ABC, in developing a portfolio of road projects by carrying out the corresponding studies for the roadway component. Below is a summary of key indicators.

Outcome indicators	Time frame	Reason for selection
The government is receiving quality technical support to make well-informed decisions regarding investments in transportation infrastructure.	During program execution	Investments in transportation infrastructure have high value and a major fiscal impact, and must be properly supported by sufficient, well-developed technical studies.

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financial instruments

- 2.1 The program will be executed as a reimbursable technical-cooperation loan operation with a disbursement period of four years. The Bank loan will consist of a blend of Ordinary Capital resources (70%, or US\$11.06 million) and resources from the Fund for Special Operations (the remaining 30%, or US\$4.74 million).

The execution period will be four years, with the disbursement timetable shown below.

<b>Disbursement Timetable (thousands of U.S. dollars)</b>					
<b>Year</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Total</b>
Component 1	335	1,715	2,350	2,300	6,700
Component 2	450	3,550	3,000	2,000	9,000
Financial audits	0	25	25	50	100
Total	785	5,290	5,375	4,350	15,800
%	4.97	33.48	34.02	27.53	100.00

## **B. Environmental and social risks**

- 2.2 This program, as it involves conducting studies, will not generate any social or environmental impacts requiring consideration. Given the nature of some of the studies, especially the railway studies (environmental and social impact study, strategic environmental assessment, etc.), the project team includes a specialist from the Environmental Safeguards Unit (VPS/ESG) to assist in developing the terms of reference and the scope, incorporating compliance with the Bank's environmental and social policies, and, in general, supporting the operation to ensure that the studies comply with applicable policies and safeguards. The terms of reference and, ultimately, the studies resulting from these contracts will be submitted to the Environmental Safeguards Unit.
- 2.3 While the studies are being prepared for the roadway sector, the scope of the existing environmental and social management framework will be reviewed along with how it is being implemented, in order to confirm that it is suitable and may be applied to the improvement and rehabilitation projects.
- 2.4 Due to the nature of the operation, an environmental and social management report will not be submitted. Based on the Environment and Safeguards Compliance Policy (operational policy OP-703), the program's nature and objectives, and its environmental and sociocultural impacts and risks, the Environmental Safeguards Unit confirmed this as a category "C" operation at meeting ESR 37-10 of 13 September 2010 and in its review of 15 October 2010 (meeting ESR 41-10).

## **C. Fiduciary risk**

- 2.5 There will be two executing agencies. The Ministry of Public Works, Services, and Housing (MOPSV), acting through its Office of the Deputy Minister for Transportation (VMT), will administer, oversee, and evaluate component 1 (railway studies); the ABC will do the same for component 2 (roadway studies). The Bank's evaluation of the ABC's institutional and fiduciary capacity indicates that the ABC is sufficiently capable and experienced to carry out the activities related to procurement, disbursements, expense vouchers, reports, and monitoring.
- 2.6 The MOPSV, under which the VMT operates, is the executing agency for loan 1839/SF-BO, and therefore has basic experience in administering projects and



programs with the Bank. Though the execution period for that loan had to be extended, some of the personnel have worked on other projects and are familiar with the Bank's fiduciary policies. According to the preliminary analysis of the VMT using the Institutional Capacity Assessment System, its record-keeping systems (accounting and procurement), storage systems, and fixed assets may need to be strengthened. The MOPSV lacks internal procurement regulations, heightening the fiduciary risk of the component for which the VMT is responsible.

- 2.7 The VMT and the ABC will be responsible for fiduciary management of the program in their respective spheres of action. The VMT, in addition to having specialists on staff with technical expertise (see paragraph 2.9), must have professionals assigned to fiduciary management of the program who meet the following criteria: (i) an accountant/auditor experienced in public financial management and accounting; and (ii) a specialist experienced in public procurement under both the country's procurement regulations and the Bank's procurement policies. Fiduciary management relating to the activities to be carried out by the ABC will be performed by the existing fiduciary teams in its relevant units.

#### **D. Other considerations and risks**

- 2.8 **Special conditions for execution.** As a condition precedent to the first disbursement for component 2, the borrower must submit evidence that it has signed and implemented a subsidiary agreement with the Bolivian Highway Administration for program execution under the terms agreed with the Bank. This subsidiary agreement will also set forth the agreements and terms for cooperation between the program's two executing agencies (VMT and ABC) for program execution.
- 2.9 To ensure proper technical support for the railway studies, the VMT will form a Railway Technical Unit (UTF), which will commission, administer, oversee, and conduct the technical evaluation of the studies. **The disbursement of resources for component 1 (railway studies) will be contingent upon the VMT's submittal of evidence that that it has formed the UTF, allocated the resources and personnel needed for it to operate, and begun to hire the specialists. Both matters require the Bank's prior no objection.**
- 2.10 **Execution risks.** The VMT lacks experience in commissioning and conducting highly complex studies such as those involved in the railway interconnection. To mitigate this risk, the VMT will ensure that the UTF has the technical capacities and qualified professionals it needs to manage these activities.

### **III. IMPLEMENTATION AND MANAGEMENT PLAN**

#### **A. Summary of implementation arrangements**

- 3.1 **Borrower and executing agencies.** The program will have two executing agencies, one for each component. The executing agency for component 1 (railway studies),

will be the Ministry of Public Works, Services, and Housing (MOPSV), acting through its Office of the Deputy Minister for Transportation (VMT). The executing agency for component 2 (roadway studies) will be the Bolivian Highway Administration (ABC). Each executing agency will administer, oversee, and evaluate the component for which it is responsible.

- 3.2 The VMT and the ABC will be directly responsible for execution of their respective components, and will plan, track, monitor, and evaluate program activities, including those related to developing the terms of reference, requests for proposals, and calls to bid; awarding, managing, and overseeing institutional and technical assistance contracts; preparing progress reports, disbursement requests, and expense vouchers; processing disbursements; and preparing all supporting documentation needed for proper program execution and supervision.
- 3.3 The VMT will select, commission, and submit to the Bank the financial audit reports and monitoring reports for the entire program. The VMT will coordinate the work of the external auditor in preparing the consolidated audited financial information.
- 3.4 **Consulting services.** Consulting services will be contracted in accordance with Bank policy (document GN-2350-7). Ex ante reviews of procurement procedures will be used only for ABC procurement contracts for amounts above the international shortlist thresholds established by the Bank. The ABC's other contracts will be subject to ex post review, as indicated in the procurement plan. All contracts for which the VMT is responsible will be subject to ex ante review. Each entity will contract the consulting services for its respective component.
- 3.5 The VMT will hire the auditing firm for the program (including both components) in accordance with the procedures set forth in operational policy OP-273-1.

**B. Summary of measures for monitoring outcomes**

- 3.6 The monitoring plan includes administrative missions, semiannual progress reports, the annual work plan, and annual external audits. Details on these activities are available through the "Monitoring and evaluation arrangements" link.
- 3.7 **Financial supervision.** Disbursements will be reviewed on an ex post basis. The VMT will be trained in how to manage and render accounts on its investments. The ABC has sufficient capacity for financial management of its component.
- 3.8 **Economic appraisal.** Due to the nature of the activities to be financed (preinvestment studies), this operation does not include an economic appraisal.
- 3.9 **Execution risks.** Component 1 (railway studies) entails a relatively high execution risk, mainly because: (i) the country lacks experience in carrying out such complex studies, and therefore also lacks teams capable of technical supervision of such studies; and (ii) pressing government needs could potentially lead execution or the sequencing of the studies' technical phases to be accelerated, and as a result the studies might not be sufficiently in-depth. As for component 2 (roadway studies), the ABC has extensive experience in commissioning and overseeing complex

studies. In any event, special attention must be given to including social and environmental considerations, to ensure compliance with the Bank's policies in this regard.

- 3.10 To mitigate these risks for component 1, the project team will pay special attention to preparing and monitoring the procurement plan, the program execution plan, the terms of reference, and execution of the studies. The main studies will be subject to technical monitoring not only by the UTF, but also by an outside supervision firm with sufficient capacity to bring these studies to a successful conclusion. For component 2 (roadway studies), the inclusion of an Environmental Safeguards Unit professional on the project team, combined with the parallel organization of a technical and institutional development plan for the ABC in social and environmental matters, to be financed with the proceeds of loans currently in execution, will help to mitigate the aforementioned risk.

**C. Summary of arrangements for monitoring outcomes**

- 3.11 The VMT and the ABC will carry out overall program supervision, each acting in its respective area of responsibility, with a focus on meeting the program's operational objectives and indicators. The final evaluation, to be conducted by the VMT, may be prepared with the assistance of a consultant hired specifically for this purpose. The VMT will prepare the semiannual reports and organize joint meetings to review progress in the program and in the annual investment plan. The Bank, acting through Transportation Division staff at the Bank's Country Office in Bolivia, will oversee program execution.
- 3.12 At the end of the program, a project completion report will be prepared to evaluate whether the program's objectives were fulfilled once all components were executed and to glean lessons learned for the sake of future projects. This evaluation will pay special attention to proper adherence to budgets and physical targets.

**BOLIVIA**  
**PREINVESTMENT PROGRAM FOR STRATEGIC TRANSPORTATION PROJECTS**  
**(BO-L1056)**

**RESULTS FRAMEWORK**

<b>Goal</b>	The program's objective is to: (i) determine the viability of the railway interconnection and the interoceanic corridor by conducting technical, economic, financial, and social and environmental studies contributing to construction of this interconnection; and (ii) develop a portfolio of projects for the Primary Road Network (RVF), to give continuity to the improvement and expansion program.		
<b>Purpose</b>	Program activities will serve to identify and develop railway and roadway projects that will help to: <ul style="list-style-type: none"> <li>(i) reduce transportation costs and travel times by interconnecting the western and eastern railway networks and improving road serviceability, thereby making the country's productive apparatus more competitive;</li> <li>(ii) make road corridors safer, thereby reducing accident rates;</li> <li>(iii) preserve the country's road assets by rehabilitating segments of the RVF; and</li> <li>(iv) make the RVF more serviceable and functional.</li> </ul>		
<b>Outcome indicators</b>	<b>Baseline</b>	<b>Target</b>	<b>Comments</b>
The government is receiving quality technical support to make well-informed decisions regarding investments in transportation infrastructure.	0	To have technical studies that enable the Bolivian government to make well-informed decisions regarding the advisability of transportation infrastructure investments.	

Component objective	Studies to analyze the viability of the railway interconnection and the interoceanic corridor						
Component 1. Railway studies	Baseline	Year 1	Year 2	Year 3	Year 4	Target <sup>1</sup>	Comments
<b><u>Outputs<sup>2</sup></u></b>  Viability study for the railway interconnection and interoceanic corridor approved by the Ministry of Public Works, Services, and Housing (MOPSV) <sup>3</sup> and the Ministry of Development Planning (MPD) <sup>4</sup>	0		1			Includes the review and in-depth analysis of medium- and long-term demand; routing options; the operational model to be implemented; technical specifications and investment costs for track, signaling, and communications; technical specifications and additional investment costs for infrastructure not directly associated with the interconnection; technical specifications, scaling, and costs of rolling stock; railway operation costs; financial projections; sources of financing for the corridor's various components; and economic and social appraisal.	
Strategic environmental assessment and environmental analysis of possible routes	0		1			Includes, at minimum, an environmental analysis of routing options and a strategic environmental assessment of these options.	
Strategic analysis of interconnection approved by MOPSV and MPD	0		1			Covers, at minimum, corridor functionality; institutional arrangements for operating the railway; necessary commercial and international agreements; and regulatory matters.	

<sup>1</sup> The scope of the study (in terms of length) is approximate, and will be determined once the study is in progress.

<sup>2</sup> The number of outputs per component varies, based on the judgment of the project team.

<sup>3</sup> Ministerio de Obras Públicas, Servicios y Vivienda

<sup>4</sup> Ministerio de Planificación del Desarrollo

Route selection study	0			1		Selection of the best route and placement to minimize investment costs, railway operation costs, and social and environmental costs	
Environmental impact study of the selected route	0				1	A study that will not only analyze the aforementioned impacts, but will also serve to obtain the environmental permits for building the interconnection and to secure international financing	
Basic engineering design for the selected route	0				1	Technical and cost study of selected route, possibly detailed enough to tender the works	
<b>Component objective</b>	Technical engineering, economic, and social and environmental studies of segments of the Primary Road Network (RVF)						
<b>Component 2. Roadway studies</b>	<b>Baseline</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Target</b>	<b>Comments</b>
<b><u>Outputs</u></b> Nazacara–Ito IV roadway study, 110 km, department of La Paz, approved by the Bolivian Highway Administration (ABC). <sup>5</sup> Final designs	0			1		A study that includes, at minimum, technical engineering, economic, and social and environmental studies	
Trinidad–Puerto Ustarez roadway study, 330 km, department of Beni, approved by the ABC. Final designs	0			1		A study that includes, at minimum, technical engineering, economic, and social and environmental studies	
Hornillos–Impora–Las Carreras roadway study, 100 km, departments of Potosí, Chuquisaca, and Tarija, approved by the ABC. Final designs	0			1		A study that includes, at minimum, technical engineering, economic, and social and environmental studies	
Villazón–Padcaya roadway study, 165 km, departments of Potosí and Tarija, approved by the ABC. Final designs	0			1		A study that includes, at minimum, technical engineering, economic, and social and environmental studies	

<sup>5</sup> Administradora Boliviana de Carreteras

Entre Ríos–Palos Blancos roadway study, 76 km, department of Tarija, approved by the ABC. Final designs	0		1			A study that includes, at minimum, technical engineering, economic, and social and environmental studies	
San Pedro–La Enconada roadway study, 81 km, department of Santa Cruz, approved by the ABC. Final designs	0		1			A study that includes, at minimum, technical engineering, economic, and social and environmental studies	
Boyuiibe–El Espino roadway study, 187 km, departments of Santa Cruz and Chuquisaca, approved by the ABC. Final designs	0			1		A study that includes, at minimum, technical engineering, economic, and social and environmental studies	
Huarina–Escoma roadway study, 97 km, department of La Paz, approved by the ABC. Final designs	0		1			A study that includes, at minimum, technical engineering, economic, and social and environmental studies	

**BOLIVIA**  
**PREINVESTMENT PROGRAM FOR STRATEGIC TRANSPORTATION PROJECTS (BO-L1056)**  
**SUMMARY PROCUREMENT TABLE (IN US\$)**

No.	Procurement method	Description	Unit of measure	Quantity	Cost	TOTAL IDB	TOTAL LOCAL	TOTAL BUDGET
		<b>TOTAL</b>				<b>15,800,000</b>	<b>0</b>	<b>15,800,000</b>
<b>1</b>		<b>Component 1. Central interoceanic railway corridor</b>				<b>6,700,000</b>	<b>0</b>	<b>6,700,000</b>
1.1	QBS	Strategic analysis of interconnection <sup>1</sup>	Unit	1	1,550,000	1,550,000	0	1,550,000
1.2	QBS	Other functional and operational studies	Unit	1	500,000	500,000	0	500,000
1.3	QBS	In-depth demand and prefeasibility study for the selected routing option	Unit	1	700,000	700,000	0	700,000
1.4	QBS	Environmental impact study of selected route Strategic environmental assessment of selected route	Unit	1	1,200,000	1,200,000	0	1,200,000
1.5	QBS	Preliminary basic engineering study of selected route	Unit	1	2,600,000	2,600,000	0	2,600,000
1.6		Implementation of Railway Technical Unit (UTF)			150,000	150,000	0	150,000
1.7	IC	Hiring of professionals and operating expenses			120,000	120,000	0	120,000
1.8	S	Provision of basic equipment for UTF			30,000	30,000	0	30,000
<b>2</b>		<b>Component 2 - Preinvestment studies for the roadway sector</b>				<b>9,000,000</b>	<b>0</b>	<b>9,000,000</b>
2.1	QCBS	Nazacara–Ito IV roadway study, 110 km, department of La Paz	Unit	1	900,000	900,000	0	900,000
2.2	QCBS	Trinidad–Puerto Ustarez roadway study, 330 km, department of Beni	Unit	1	2,900,000	2,900,000	0	2,900,000
2.3	QCBS	Hornillos–Impora–Las Carreras roadway study, 100 km, departments of Potosí, Chuquisaca, and Tarija	Unit	1	700,000	700,000	0	700,000
2.4	QCBS	Villazón–Padcaya roadway study, 165 km, departments of Potosí and Tarija	Unit	1	1,200,000	1,200,000	0	1,200,000
2.5	QCBS	Entre Ríos–Palos Blancos roadway study, 76 km, department of Tarija	Unit	1	700,000	700,000	0	700,000
2.6	QCBS	San Pedro–La Enconada roadway study, 81 km, department of Santa Cruz	Unit	1	600,000	600,000	0	600,000
2.7	QCBS	Boyuíbe–El Espino roadway study, 187 km, departments of Santa Cruz and Chuquisaca	Unit	1	1,700,000	1,700,000	0	1,700,000
2.8	QCBS	Huarina–Escoma roadway study, 97 km, department of La Paz	Unit	1	300,000	300,000	0	300,000
<b>3</b>		<b>Program audits</b>				<b>100,000</b>	<b>0</b>	<b>100,000</b>
3.1	QCBS	Program audits	Unit	1	100,000	100,000	0	100,000

<sup>1</sup> This study will take as its starting point a paper issued by the Bolivia government titled “*Estudio de identificación: Corredor ferroviario bioceánico central* [Identification Study: Central Interoceanic Railway Corridor]” (November 2010). The scope of this study will include an environmental analysis of possible routes, as well as a confirmation and more in-depth analysis of the demand levels and feasibility of each routing option.

IC = International consultant

QCBS = Quality- and cost-based selection

QBS = Quality-based selection

S = Shopping



DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/10

Bolivia. Loan \_\_\_\_/BL-BO to the Plurinational State of Bolivia  
Preinvestment Program for Strategic Transportation Projects

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Plurinational State of Bolivia, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a preinvestment program for strategic transportation projects. Such financing will be for the amount of up to US\$11,060,000 from the resources of the Single Currency Facility of the Bank's Ordinary Capital, corresponds to a parallel loan within the framework of the multilateral debt relief and concessional finance reform of the Bank, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on \_\_ \_\_\_\_\_ 2010)

LEG/SGO/BO-35402614-10  
Pipeline No. BO-L1056

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/10

Bolivia. Loan \_\_\_\_/BL-BO to the Plurinational State of Bolivia  
Preinvestment Program for Strategic Transportation Projects

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Plurinational State of Bolivia, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a preinvestment program for strategic transportation projects. Such financing will be for the amount of up to US\$4,740,000 from the resources of the Bank's Fund for Special Operations, corresponds to a parallel loan within the framework of the multilateral debt relief and concessional finance reform of the Bank, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on \_\_\_\_ 2010)