

**PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE**

Report No.: PIDA28094

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Project Name	BO Road Sector Capacity Development Project (P144597)
Region	LATIN AMERICA AND CARIBBEAN
Country	Bolivia
Sector(s)	Rural and Inter-Urban Roads and Highways (80%), General transportation sector (20%)
Theme(s)	Regional integration (90%), Infrastructure services for private sector development (10%)
Lending Instrument	Investment Project Financing
Project ID	P144597
Borrower(s)	Ministry of Development Planning
Implementing Agency	Bolivian Roads Agency (Adminstradora Boliviana de Carreteras, ABC)
Environmental Category	B-Partial Assessment
Date PID Prepared/Updated	08-Oct-2015
Date PID Approved/Disclosed	13-Oct-2015
Estimated Date of Appraisal Completion	15-Sep-2015
Estimated Date of Board Approval	12-Nov-2015
Appraisal Review Decision (from Decision Note)	The Meeting and the Team agreed on addressing all the aspects pointed out during Decision Meeting. Once achieved, the Team is authorized to appraise.
Other Decision	The project was at PCN stage conceived as a PforR preparation. Following assessment of procurement systems it was found that pursuing PforR would require upfront significant amendments to specific procurement aspects that the Government was not in a position to implement prior to project approval. It was therefore mutually agreed to convert the preparation to an IPF.

I. Project Context

Country Context

Bolivia took advantage of a decade of high commodity prices to generate strong growth and build robust macroeconomic indicators. Boosted by gas and mining exports as well as by rapidly increasing public investment, growth has averaged around 5 percent per year since 2004. Good economic performance has allowed for a substantial reduction of poverty and inequality. Higher commodity and food prices, and a dynamic domestic demand allowed for a rapid increase of revenues and a reduction in unemployment, both in rural areas—where most poor are located—and

for non-tradable sectors in urban areas, particularly those engaging low-skilled workers. As a result, the average income of the bottom 40 percent of the population increased by 9.4 percent per year between 2002 and 2013, two times higher than the average income growth. This is the root of the strong poverty reduction that passed from 63 percent of the population in 2002 to about 39 in 2013, while extreme poverty fell from 39 percent in 2002 to 19 percent in 2013. The Gini coefficient has also decreased from 0.60 in 2002 to 0.47 in 2012.

Despite these positive results and reductions in poverty and inequality, Bolivia still faces numerous development challenges. The country still has one of the lowest GDP per capita levels in the region while other social indicators, which have improved since the 1990s, are still below those in neighboring countries. Despite strong public investment, total investment remains low as private investment is among the lowest in the region, despite the exceptional recent context. In early 2013, Bolivia launched the 2025 Patriotic Agenda with the goal of eradicating extreme poverty and translating the country's increasing prosperity into well-being on the local levels. The Government Plan has as one of its primary focus development of the transport sector.

Bolivia's transportation network comprises: 39 airports, of which 7 are classified as international; 2,268 km in two non-contiguous railway systems; the Paraguay-Parana inland waterway and Lake Titicaca with limited passenger and freight transport, and 74,740 km of national road network. As a landlocked country, Bolivia uses seaports of neighboring countries.

From 1990 to date, the nation-wide road network has increased by about 70 percent, promoting connectivity as well as lower costs and reduced travel times for passengers and freight. The road network is divided into: the primary network covering some 15,963 km; 19,258 km of Departmental network; and a municipal network covering some 39,492 km. Despite this significant growth of the road network, Bolivia has one of the smallest national road networks in the region, as well as one of the lowest number of paved kilometers per person and per surface area. With only 10% of roads paved and 50% dirt roads, the quality of Bolivian roads is lower than in most other countries in the region.

Sectoral and institutional Context

The country is rapidly expanding its primary road network in support of its larger development objectives and poverty reduction strategy, thus leading to imbalance between the capital investments and maintenance funding. Somewhat predictably, maintenance loses the battle resulting in inevitable irregular and insufficient funding, and inadequate private sector interest leading to an overall poor quality network. The project is addressing the situation by (a) building overall management capacity to plan, prioritize, and implement road investments in a holistic manner, and (b) to bundle different phases of road interventions i.e. rehabilitation, routine and periodic maintenance into a single operation using a new (to the country) contracting approach.

The road sector is strategically relevant to Bolivia's economic development. Bolivia is a landlocked country challenged by its geography and topography. The main cities and areas of extractive industries along with agriculture tend to be the economic drivers. The primary road network, instrumental in providing efficient transport services, comprises Bolivia's corridors for trade and economic activity and provide socially important integration between Bolivia's regions. Roads are key for imports and exports with majority of goods trucked from production zones to consumption

centers or across borders. During 2010, a partial analysis of the paved portion of the primary road network showed it carried approximately 90 million passenger-trips per year and transportation of 70 million tons of freight.

Out of the 15,963 km primary road network, currently 5,883 km are paved, which is an increase of 30 percent since 2006: 67 percent with asphalt concrete; 13 percent with concrete; 10 percent with double surface treatment; and the remaining 10 percent with other materials.

For 2014, 31 percent of Bolivia's public investment was in the transport sector, representing 5 percent of the total budget. Of this investment budget, US\$996.07 million were allocated to the primary road network of which US\$705.89 million were invested accruing 71 percent of the allocated budget.

The growth of traffic volumes on primary network roads, in the period 2007-2012 ranges from 4 to 11 percent per year, with the largest increases occurring on routes closest to departmental capitals. Of the length of the paved primary road network, 76 percent had average daily traffic (ADT) of less than 3,000 vehicles and whereof 9 percent was less than 500 vehicles based on 2010 traffic survey.

Overall portfolio responsibility for Bolivia's road sector is with Ministerio de Obras Publicas, Servicios y Vivienda (MOPSV – Ministry of Public Works, Services, and Housing), with the primary road network managed by a road agency (ABC - Administradora Boliviana de Carreteras). The mandate of ABC is to plan, study and design, construct, maintain, preserve, and operate the road network under its responsibility. ABC was formed in 2006 as a result of restructuring of a previous road agency and has since been challenged with building its capacities to adequately manage the sector, while at the same time absorbing increases in its budget. Prior to the reorganization, upgrading the network progressed slowly.

Capacity Challenges. In preparation of the Project and in order to understand ABC capacity for management of the primary road sector, the World Bank Group (WBG) did a comprehensive assessment of ABC's systems, procedures and processes. Broadly, it is found that fiduciary management needs substantial strengthening; that weaknesses in technical management include monitoring of the condition of paved roads, planning for timely interventions to ensure long-term servicability and preservation of the network, and contract management; and that while environmental and social management in preparation and execution of works is generally acceptable, features of these can be strengthened.

ABC has identified that addressing some of these capacity challenges in the short and medium term is critical to its mission to efficiently deliver on its mandate overall and under the Project in particular. Many of the challenges are caused by the public procurement framework ABC is required to use, which are now under review.

Road Sector Strategy. The country's implicit strategy for the primary road network can be summarized as (i) upgrading the primary road network, (ii) providing timely and appropriate maintenance of road assets through rehabilitation, particularly on the paved primary road network, and (iii) delivering routine maintenance on the whole of the primary road network.

Bolivia's highway network is not yet mature and still requires significant development to address the mobility needs of the country's remote areas. Bolivia's Government decided a few years back

that the whole of the Bolivia primary network shall be paved by 2025. It is this decision which in a relatively short period has absorbed the majority of allocations to the road sector between 2006 and 2014. As this is taking place, ABC has found it challenging to adequately preserve its paved roads through timely and appropriate interventions. Following road upgrading, pavement conditions tend to soon deteriorate due to late and insufficient interventions. The latest assessment (2010) of the condition of the paved primary network highlighted that, out of the 80% of the surveyed network, about a third was in good condition and about half in regular condition. In 2013, it was estimated that the part of the primary road network in good condition had dropped to about 26 percent. This is largely due to inadequate maintenance and rehabilitation and continuing this pattern will constitute a very inefficient and wasteful use of public resources. The overall primary road sector situation is that of a fast-expanding paved highway network, albeit in an overall poor condition.

ABC is seeking to balance its focus with significantly increasing attention to the second element of the strategy, and has been exploring ways to more systematically execute routine and periodic maintenance, by integrating paved road conditions assessments with planning and execution of needed works to ensure serviceability of the paved road network.

Contracting Methodology. Contracting for road works in Bolivia has traditionally been on the basis of input-type of contracts, where ABC prepares detailed engineering designs, issues as part of the bidding a bill of quantities which bidders price, and where in execution any variation in quantities is the responsibility of ABC. As is also the case globally, this results in numerous transactions, many of which fail before contracting, contracts that frequently are completed late and often with significant cost variations and sometimes in roads of substandard quality. Delays of maintenance works adversely impact the management of the entire road network, causing losses in road assets and unsatisfactory service to the users of the roads.

To address these deficiencies, ABC has decided that it will move towards the usage of a multi-year performance-based contract (PBC) methodology for preservation of the paved primary road network. The methodology focuses on outputs and not on inputs and measures what is achieved rather than what is done. Under PBC, the payments made to the contractor are not based on quantities of works measured by unit prices for works inputs, but rather on measured outputs reflecting the target conditions of the roads under contract, expressed through contractually defined service levels. The Contractor is responsible for preparing detailed design and management of the works necessary to reach the required service levels, and the durability and performance of the roads over the multi-year life-span of a contract. Internationally, this contracting methodology and structure has proven to provide the appropriate incentives and disincentives to contractors resulting in better quality works and better value for money.

The decision is based both on ABC's prior piloting of contracts by standards (contratos por estandares), where to an extent an outcome is prescribed in the contracts, and learning from experience of other countries in use of PBCs. ABC is developing a specific model of contracts based on the local and international experiences, referred to as Contratos de Rehabilitación y Cumplimiento de Estándares (CReCE).

The Project will support implementation of the first set of these contracts and ABC plans to expand their use over the coming years to eventually cover the whole of the primary paved road network – initially with an annual \$200 million allocation to CReCE, which can be expected to add 500-600 km of the primary road network to this system of management. Should the trend hold, half of the

paved primary road network will be covered by these contracts in about 6-7 years.

The capacity of the local construction industry in road works is considered weak. This is partly explained by the country's procurement processes and systems, but also resulting from the fact that the contractors often are not sustaining the needed financial and equipment capacity due to uncertainties about the business outlook. For the former, Bolivia's procurement systems is now under review and is expected to largely address systemic procurement deficiencies. For the latter, ABC's move towards systematic maintenance of established paved roads should give comfort that for the long run there will be a volume of predictable contracting.

In summary, the Project will support transformational actions that collectively will strengthen Bolivia's primary road sector management. Through the preparation of the Project, a comprehensive sector policy dialogue has taken place and is expected to continue during implementation, both on overall road sector management and technical aspects. The use of performance-based road contracting in preservation of the established paved primary road network represents the first steps for ABC toward adoption of formal Road Asset Management.

II. Proposed Development Objectives

The Project Development Objective (PDO) is to enhance Bolivia's national road sector management and improve the condition of the country's primary paved road network targeted under the project.

III. Project Description

Component Name

Component A. Capacity Development

Comments (optional)

Component Name

Component B. Performance-based road contracting of paved primary network

Comments (optional)

IV. Financing (in USD Million)

Total Project Cost:	225.00	Total Bank Financing:	225.00
Financing Gap:	0.00		
For Loans/Credits/Others			Amount
BORROWER/RECIPIENT			0.00
International Bank for Reconstruction and Development			165.95
International Development Association (IDA)			59.05
Total			225.00

V. Implementation

As the Project's implementing agency ABC has full responsibility for its technical, fiduciary, and environmental and social aspects. ABC is a decentralized entity of the MOPSV and is granted with its own legal status and technical, administrative, and financial autonomy.

ABC consists of headquarters in La Paz and nine regional offices in each of the country's Departments; each regional office has a similar organizational structure as the headquarters. The agency has about 340 staff, out of which some 200 positions are based in the regional offices, and is further supported by consultants as necessary. A third of the total staff are engineers, whereof half are based regionally. ABC has a decentralized model for its operation, under which the regional offices have responsibility for operational aspects of project implementation, including contract management and subsequent daily works supervision and quality control. However, for this Project ABC has decided that procurement will be managed by its headquarters.

The Director of Technical Management (Gerencia Nacional Tecnica) in ABC will lead the implementation of capacity development actions under the Project, with support of two appropriately qualified consultants or reassigned staff. ABC's Preservation Unit will carry out the civil works program planning and preparation, as well as monitoring and evaluation. Bidding documents for the CReCE contracts financed under the Project are being developed by ABC with WBG support through sharing in-depth experience from similar contractual approach in other countries. Works monitoring (supervision) will be carried out by ABC with support of monitoring consultancy firms. For purposes of day-to-day engagement, ABC has a focal person dedicated to WBG financed projects who coordinates as need be with various units of ABC.

The collectivity of Project activities and introduction of new contract methodology implies a start of change management in ABC. Beyond financing the Project components the WBG will support ABC with lessons from other road authorities who have successfully reoriented their organizations and provide training and workshops on aspects of change management that may benefit.

ABC will by the early 2016 formally engage the construction industry and present Bolivia's multi-year road works and investment plan, with the aim of giving the private sector confidence to start building the necessary capacities. To improve likelihood of successful tendering of CReCE financed by the project, ABC will in November 2015 with the support of the Bank consult the tender documents with the market before commencing bidding to both start sensitizing contractors and to receive feedback on the structure of the contract, and upon tendering, hold a two-stage pre-bid meetings where the contract details will be presented and discussed with those contractors who have bought the documents.

ABC's Environmental and Social Department is responsible for the overall environmental and social supervision of the Project and its compliance with legislation applicable to the sector. It coordinates, working closely with the Preservation Unit all aspects related to planning, preparation of social and environmental studies, and compensation programs for resettlement and land acquisition.

VI. Safeguard Policies (including public consultation)

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	x	
Natural Habitats OP/BP 4.04	x	
Forests OP/BP 4.36		x
Pest Management OP 4.09		x
Physical Cultural Resources OP/BP 4.11	x	
Indigenous Peoples OP/BP 4.10	x	

Involuntary Resettlement OP/BP 4.12	x	
Safety of Dams OP/BP 4.37		x
Projects on International Waterways OP/BP 7.50		x
Projects in Disputed Areas OP/BP 7.60		x

Comments (optional)

VII. Contact point

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