I. Introduction and Context

Country Context

Paraguay is a landlocked country with a small open economy that is highly dependent on foreign trade (with soy and beef accounting for nearly a half of the total exports). After almost two decades of economic stagnation and instability, average annual GDP growth rate exceeded 4.5 percent and GDP per capita grew 33 percent, between 2003 and 2013. Favorable terms of trade and the strong performance of exports led to current account surpluses averaging 1.1 percent of GDP during this period. Moderate poverty declined sharply in 2003-2013, dropping from 44 percent to 23.8 percent. According to the Permanent Household Survey, in 2013 extreme poverty affected 10 percent of Paraguayans and poverty levels in the rural areas (33.8 percent) were almost double than those observed in the urban areas (17.0 percent). The Government of Paraguay has prepared its National Development Plan (PND) for the period 2013-18 which spells out its policy agenda to reduce...
extreme poverty by increasing access to markets, reducing economic volatility and improving the delivery of public services. Modernization of the country’s infrastructure has been identified as one of the major pillars in this effort.

**Sectoral and Institutional Context**

Being landlocked makes Paraguay heavily dependent on road and fluvial transport to connect with neighboring countries for its exports. The significant shortfalls in the quality of the transport infrastructure add to this burden. The challenges go beyond the road network, both port capacities and air transport system need administrative, technological and infrastructural improvements in order to cope with rising demand. Given its crucial role, it is imperative therefore to prevent the sector from becoming a binding constraint to growth.

In addition, road transport cargo demand and the number of vehicles are on the rise; departmental and tertiary road networks need priority attention in order to improve connectivity of rural populations to the main road network and to markets and services; road safety is an existent and rising concern; maintenance remains a deferred and underfunded mandate; the hidrovia remains inefficient mainly due to shortfalls in dredging and signaling; and traffic concentration in certain areas, particularly in Asuncion, translate into adverse externalities.

The total Paraguayan road stock is estimated at 100,000km, of which only 38,000km are classified and fall under current MOPC planning and intervention. Of these, around 5,500km is paved (14 percent of the total classified roads). At the same time, 90 percent of the departmental (13,230km) and local roads (12,600km) are unpaved, a situation that especially exacerbates transport conditions in the rural areas during the rainy seasons.

Road maintenance remains significantly deferred and poorly funded. According to MOPC, the funds collected from tolls amount to roughly US$17 million annually in comparison to annual maintenance needs calculated at US$ 106 million. Bank estimates for periodic and routine maintenance that would sustain about half of the classified roads at their right level of service is estimated at almost double, at US$260 million.

Road safety is a very serious public health issue in Paraguay. The country has a worrisome toll of 18.5 deaths per 100,000 inhabitants, with about 1,200 lives lost and over 30,000 injuries sustained annually due to road traffic crashes. Road fatalities have increased over 200 percent since the year 2000. Road injury is the first cause of death for people between 15 to 29 years of age, and the second cause of death for children between 5 and 14 years old. The economic cost of road crashes is estimated to be between 2 to 4 percent of Paraguay’s GDP. Global studies estimate that the fatality rate for several LAC countries, including Paraguay, could increase by about 50 percent, unless road safety efforts are intensified and new measures are introduced.

Institutional and regulatory frameworks also represent a major bottleneck for the modernization of the transport system. The weak institutional capacity of the key stakeholder MOPC, a weak human resources policy, poor contract management, and cumbersome budget implementation, are some of the issues that undermine the efficient and effective functioning of the sector.

**Relationship to CAS**

The proposed operation tackles challenges in the sector identified in the Country Partnership Strategy for the Republic of Paraguay 2009-2013 and reiterated in the ongoing CPS preparation. The challenges of inefficient transport are noted in high transport and logistics costs arising from the limitations posed by the restricted access of the rural population to all weather roads, and by the poor condition of the national road network connecting major centers in Paraguay and to the rest of the Mercosur. The current CPS preparation has noted Paraguay’s infrastructure gap as particularly
visible in terms of transport infrastructure. The proposed operation focuses largely on the road sector.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)
The Project Development Objectives (PDO) are to improve the efficiency in the management of the country’s national road transport network, and contribute to improved road safety outcomes. This will be achieved through (i) enhancing the institutional capacities of the MOPC for strategic planning and management of the road network (ii); implementing more efficient mechanisms of road asset preservation namely performance based contracts on selected national roads, and (iii) improving the capabilities of the newly created road safety agency in order to positively influence road safety outcomes in Paraguay.

Key Results (From PCN)
The key indicators proposed for this project are: (i) increase in the percentage of total classified roads in good and fair condition; (ii) increase in the percentage of the paved road network as a share of the total classified roads, (iii) reductions in travel times on targeted road sections; (iv) creation of a fully functional road asset management system that is populated with road inventory, traffic and condition data of the national road network; (v) contribute to increased resources for maintenance through the establishment of a modern tolling system with at least 5 new toll stations; and (vi) reductions in road crash rates on select demonstration corridors.

III. Preliminary Description

Concept Description
The proposed project components are as indicated below:

Component 1. Improvement and Maintenance of the Paved Road Network (proposed Bank financing of US$75 million)
Sub-Component 1.1 Performance Based Contracting (US$ 70 million): This sub-component will continue the implementation of the performance based maintenance contracting (under the GMANS and/or CREMA models) of around 400km of main paved roads of Paraguay.
Sub-Component 1.2: Tolling (US$ 5 million) Under this sub-component initiatives started under the MOPC tolling modernization system will be continued with the financing of Phase II (modernization and establishment of at least 5 tolling stations) on the main paved road network to support cost-recovery efforts for sustained road maintenance.

Component 2. Institutional Strengthening (proposed Bank financing US$15 million):
Sub-component 2.1 Institutional Strengthening MOPC (US$ 13.5 million): This component would finance the strengthening of strategic planning (road inventory, road condition, road asset management module, economic decision module), as well as a series of consulting services, training and goods needed to improve the institutional capacity of MOPC. It will also support initiatives to investigate the feasibility of alternative financing (e.g. fuel levies) for road maintenance in order to ensure the sustainability of the road assets.
Sub-component 2.2: Routine Maintenance of unpaved roads (US$ 1.5 million): this sub-component will continue the successful model of micro-enterprises, and finance the creation of at least 10 micro-enterprises to carry out the routine maintenance activities of target road sections improved under previous financing. This work has the potential to provide employment opportunities to particularly vulnerable and disadvantaged groups like indigenous peoples, and women. Past experience has shown this to have positive spillover effects in empowerment, agency, voice and
Component 3. Road Safety (proposed Bank financing US$10 million):
This component is proposed to support the initial actions of this recently created lead road safety agency and strengthen its technical capabilities in areas such as: (i) dissemination and awareness raising campaigns; (ii) traffic control and regulation; (iii) traffic records and accident statistics; (iv) accident black spots and risk map; (v) road safety education; (vi) training of professional drivers and enforcement authorities; (vii) control over the issuance of the national driver’s license; (viii) mandatory vehicle safety audit; (ix) uniform road signaling and road infrastructure; (x) emergency response management; (xi) traffic legislation consistency; (xii) helmet equipment for motorbikes; and (xiii) civil society participation in policy planning.

IV. Safeguard Policies that might apply

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V. Financing (in USD Million)

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VI. Contact point

World Bank
Contact: Maria Marcela Silva
Title: Lead Transport Specialist
Tel: 473-2092
Email: msilva@worldbank.org

Borrower/Client/Recipient
Name: MOPC
VII. For more information contact:

The InfoShop
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 458-4500
Fax: (202) 522-1500
Web: http://www.worldbank.org/infoshop