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

Report No.: AB7596

| Project Name                | Road Safety Support Project                                  |  |  |
|-----------------------------|--|--|--|
| Region                      | South Asia   |  |  |
| Sector                      | Transport  |  |  |
| Project ID                  | P149606  |  |  |
| Borrower(s)                 | Government of Nepal  |  |  |
| Implementing Agency         | Department of Roads, Ministry of Physical Infrastructure and |  |  |
|                             | Transport  |  |  |
| <b>Environment Category</b> | [] A [X] B [] C [] FI [] TBD (to be determined)              |  |  |
| <b>Date PID Prepared</b>    | June 27, 2014  |  |  |
| Date of Appraisal           | May 26, 2014   |  |  |
| Authorization               |  |  |  |
| Date of Board Approval      | Not Applicable   |  |  |

#### I. Country and Sector Background

#### **Country Context**

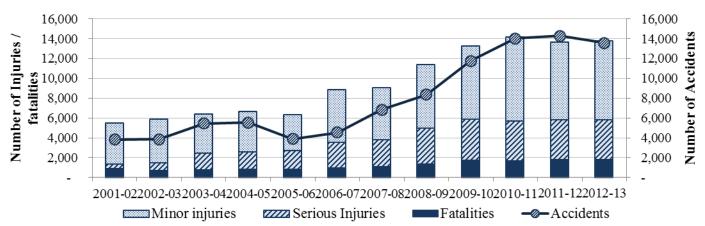
Inaccessibility has been the defining characteristic of Nepal's history. Migration, smaller and opposing kingdoms, and geographically isolated internal areas have left Nepal with 125 distinct caste/ethnic groups and 123 spoken languages according to the 2011 National Population and Housing Census. The notion of Nepal as an integrated nation is relatively modern and remains somewhat elusive as evidenced by the recent rise in 'identity politics.' In part, this reflects historic and current challenges relating to physical connectivity. While the national road network provides many economically and socially vital linkages between population centers, it still fails to serve all 75 districts in Nepal. Continuing efforts to expand road access to a greater number of districts has often omitted safety-related considerations. Nepal's cabinet endorsed a national Road Safety Action Plan in 2013 to improve upon this approach. There are five pillars within this national plan that align with the UN Global Plan for the Decade of Action for Road Safety (2011-2020) including: (i) building road safety management capacity; (ii) improving the safety of road infrastructure and broader transport networks; (iii) further developing the safety of vehicles; (iv) enhancing the behavior of road users; and (v) improving post-crash care. Implementation of the Road Safety Action Plan remains in its early stages and the Government of Nepal is looking to accelerate progress.

#### Sectoral and Institutional Context

There is a clear need for improving the safety of Nepal's roads. Statistics from the Nepal Police Traffic Directorate estimate that there were approximately 13,582 road traffic accidents in Nepal during FY12/13. These accidents resulted in 1,816 fatalities, 3.986 major injuries, and approximately 8,000 minor injuries. A 2007 estimate suggested that road traffic accidents cost Nepal between 0.4% and 0.8% of GDP annually.<sup>1</sup> The challenges posed by road safety are different for different regions of Nepal. While roughly one half of all accidents occur in the

<sup>&</sup>lt;sup>1</sup> "Cost of Road Traffic Accidents in Nepal"; GoN DOR Road Connectivity Sector I Project (ADB Grant 0051-NEP); N.D. Lea (Canada) - CEMAT- Soil Test- TMS JV: 2008.

Kathmandu Valley, it is important to note that these tend to be less severe than accidents in regions outside of Kathmandu. For example, in FY09/10 the rate of fatalities per 10,000 registered vehicles in regions outside Kathmandu ranged from 7 to 33 times higher than the rate of fatalities observed in the valley. One explanation for this disparity is mass-casualty events that result when a single multi-passenger vehicle (e.g. a bus) loses control and plummets from steep hill or mountain roads. Bus accidents along long-distance routes account for roughly 13% of all fatalities and 31% of serious injuries suffered as a result of road traffic accidents in Nepal. Figure below summarizes road traffic accident trends in Nepal.



The IDA-supported Road Sector Development Project (RSDP) has been working to develop Nepal's national road network in the Far Western and Mid-Western regions. Districts within these regions are among the poorest and least connected. A key aim of RSDP is to connect eight remote district headquarters in the Mid-Western and Far-Western regions with all-weather roads<sup>2</sup>. As of end-March, 2014 five additional district headquarters have gained access to all weather road linkages. RSDP is on target to complete linkages to three further districts by June, 2015. Under the aegis of RSDP, a team of experts has undertaken a Road Safety Audit of 7 project roads and identified investments that can help improve their safety. In particular, the team recommended installation of crash barriers to prevent vehicles from large vertical drops that are a common feature on roads in Nepal's hill and mountain districts. The addition of such barriers will help mitigate the risk of fatalities on RSDP roads and will serve as an example for improved technical solutions to developing the national road network.

#### Higher Level Objectives to Which the Project Contributes

The proposed activity aligns with pillar 1 of the draft new Country Partnership Strategy (CPS) for Nepal (approved May 29, 2014). The title of this pillar is "Increasing economic growth and competitiveness". Specifically, proposed activities would contribute to CPS outcome 1.1: "Improved transportation connectivity, internally and with India." The CPS recognizes that improving the availability of safe road connectivity is necessary for inclusive growth throughout Nepal – particularly in more remote regions of the country.

## **II.** Objectives

<sup>&</sup>lt;sup>2</sup> Specifically, the headquarters of the following districts : Baitadi, Darchula, Bajhang, Dailekh, Kalikot, Jajarkot, Rukum and Jumla

The Project Development Objective of this operation is to improve the physical safety features of selected RSDP roads and to strengthen the Government of Nepal's capacity for implementing the national Road Safety Action Plan.

## **III. Rationale for Bank Involvement**

The Bank has been involved in the Nepal road sector for over four decades. RSDP roads, on which the crash barriers will be installed, have been financed by the Bank. Necessary safety measures were not installed on these roads due to the resource constraints. It is necessary to make these roads safer. Also this project might trigger further investment in making roads safer using physical interventions from other actors including the government. The Road Safety Action Plan has been developed with IDA support using RSDP funding. The government needs financial support to kick start road safety action plan activities including the setting up of the Road Safety Council and Secretariat. The government also needs hand-holding at the initial stage of the implementation of the action plan.

# **IV. Description**

The proposed project entails a Global Road Safety Facility (GRSF) grant of US\$ 7.5 million (equivalent) that will fund investments in parallel to the IDA-supported Road Sector Development Project. The funding source of this grant is a GBP 5 million contribution from the United Kingdom's Department for International Development (DfID).

## V. Financing

The following Table summarizes the project's funding structure and the different amounts allocated to each component.

| Component   | Sub-Component  | Total<br>(all sources) | GON | GRSF<br>(DfID)  |
|-------------|--|------------------------|-----|-----------------|
| Component A | : Capacity strengthening                               | 1,1330,000             | -   | 1,133800030,000 |
| A1          | Establishing Nepal Road Safety Council and Secretariat | 80,000                 | -   | 80,000          |
| A2          | Legislation and capacity strengthening                 | 315,000                | -   | 315,000         |
| A3          | Small scale safety pilots                              | 738,000                | -   | 738,000         |
| Component B | : Improved physical safety of RSDP roads               | 6,700,000              | -   | 6,700,000       |
| B1          | Crash barriers on RSDP roads                           | 6,700,000              | -   | 6,700,000       |
| TOTAL       |  | 7,863,000              | -   | 7,863,000       |

## **Project Funding Summary**

## **VI.** Implementation

#### **Institutional and Implementation Arrangements**

The RSDP PCT within Nepal's Department of Roads (DOR) will implement the project under the Ministry of Physical Infrastructure and Transport (MoPIT). RSDP closes in June, 2015 whereupon DOR's Foreign Cooperation Branch (FCB) will assume the RSDP PCT's responsibilities. Implementation will rely heavily on field-based RSDP offices or DOR's divisional offices that are based near construction sites. RSDP field offices are already equipped with project vehicles and other logistics (e.g. computers) that will be required for implementation.

DOR's planning branch will be responsible overseeing the technical design standards, norms, and safeguards applied to the project. Initially, Planning Branch will coordinate the implementation of component A to strengthen capacity for implementing Nepal's Road Safety Action Plan. Once established, this role will shift to the National Road Safety Council and Secretariat (which the project will help to mobilize).

The RSDP PCT and later DOR's Foreign Cooperation Branch will be responsible for awarding project contracts and carrying out day-to-day supervision of works under Component B. DOR's E-procurement system which has proven effective at reducing bidder collusion and intimidation, will serve as the means for procuring civil works under the operation.

All safeguards related aspects of the project will be identical to the ongoing RSDP operation. Similarly, fiduciary arrangements will be the same as under RSDP with the exception of additional reporting as required to the GRSF in accordance with grant requirements. The Bank will manage project supervision in tandem with ongoing supervision activities for RSDP. DfID is expected to take part in implementation review missions.

#### **Results Monitoring and Evaluation**

The monitoring and evaluation framework for this operation will measure output level results for each Component. In addition a simplified impact evaluation experiment will develop a rough measure for vehicle falls avoided. This will entail a simplified approach to measuring vehicle impacts on new guard rails at 5 locations over a six month period. During implementation the RSDP PCT will identify five test sites where new crash barriers have been installed. These five sites will be marked and visually surveyed every other month by project consultants who will document likely vehicle impacts using photographs and location information. The aim of this study will be to inform future analysis into the relative benefits of installing crash barriers more widely in Nepal.

#### VII. Sustainability

There are two primary factors that will affect the sustainability of results achieved under this operation as follows: (i) maintenance of crash barriers once installed; and (ii) continued government support to the Nepal Road Safety Council and Secretariat beyond the period of this operation.

In the case of crash barrier maintenance, length persons assigned to RSDP roads will handle routine maintenance tasks such as clearing debris, and undertaking repairs that can be handled with basic hand tools. Length persons will also serve as a reporting mechanism for damaged

crash barriers that need more extensive repairs (e.g. following a vehicle impact). For more extensive maintenance requirements, DOR divisional offices will include crash barriers in their Annual Road Maintenance Plans (ARMPs) that receive funding from the Roads Board Nepal and the national budget. Historically this has been insufficient to support all maintenance requirements. However, GON has been steadily increasing the amount of funding to the Roads Board Nepal in recent years towards more sustainable levels.

The sustainability of the Nepal Road Safety Council and Secretariat largely depends on Nepal passing a new Road Safety Act. This will provide a legal basis for the NRSCS's activities and will likely also provide for regular funding of its activities. Component A therefore includes support to draft the new law and present it to Nepal's legislature. In the event that Nepal does not pursue a Road Safety Act, the Bank will seek to reallocate funding in Component A towards strengthening technical units within the Department of Roads that can spearhead road safety initiatives within the context of their ongoing work programs.

## VIII. Lessons Learned from Past Operations in the Country/Sector

## Lessons from the Road Sector Development Project

The Road Sector Development Project (RSDP) has previously encountered difficulties relating to poor contractor performance and implementation delays. The RSDP PCT has acted to improve upon its contract management and oversight functions. As a remedial measure the RSDP PCT together with members of the Bank team are undertaking joint monthly field supervision visits. These regular visits have proven effective at ensuring that DOR's field-based staff monitor contractors proactively. The RSDP PCT has also initiated actions against poorly performing contractors in an effort to accelerate lagging performance. In one case RSDP has already forfeited a contractor's performance guarantee. A key piece of learning from this experience is the importance of double checking the effectiveness of field supervision and activating recourses early on to minimize delays. The RSDP PCT and the Bank team will continue joint field supervision missions under this operation to ensure that works are properly managed.

| Safeguard Policies Triggered by the Project                  | Yes | No | TBD |
|--|-----|----|-----|
| Environmental Assessment (OP/BP 4.01)                        | Х   |    |     |
| Natural Habitats ( <u>OP/BP</u> 4.04)                        |     | X  |     |
| Pest Management ( <u>OP 4.09</u> )                           |     | X  |     |
| Physical Cultural Resources (OP/BP 4.11)                     |     | X  |     |
| Involuntary Resettlement ( <u>OP/BP</u> 4.12)                |     | X  |     |
| Indigenous Peoples ( <u>OP/BP</u> 4.10)                      | Х   |    |     |
| Forests ( <u>OP/BP</u> 4.36)                                 |     | X  |     |
| Safety of Dams ( <u>OP/BP</u> 4.37)                          |     | X  |     |
| Projects in Disputed Areas ( <u>OP/BP</u> 7.60) <sup>*</sup> |     | X  |     |
| Projects on International Waterways ( <u>OP/BP</u> 7.50)     |     | Х  |     |

## X. List of Factual Technical Documents

<sup>\*</sup> By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas

# **XI.** Contact point

#### World Bank

Contact:A.K. Farhad AhmedTitle:Senior Transport SpecialistTel:+977 (1) 4226792 Ext. 6181Email:fahmed8@worldbank.org

XII. 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 Email: pic@worldbank.org Web: http://www.worldbank.org/infoshop