



# Completion Report

---

Project Number: 45019-001  
Technical Assistance Number: 7840  
September 2015

## Bangladesh: Road Safety Improvement Programs

This document is being disclosed to the public in accordance with ADB's Public Communications Policy 2011.

Asian Development Bank

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

<b>TA No., Country and Name</b>			<b>Amount Approved : \$600,000.00</b>	
TA 7840-BAN: Road Safety Improvement Programs			<b>Revised Amount : \$600,000.00</b>	
<b>Executing Agency:</b> Ministry of Road Transport and Bridges (MoRTB)		Source of Funding: ADB's TA Special Fund (TASF-IV)	<b>Amount Undisbursed:</b> \$36,835.96	<b>Amount Utilized:</b> \$563,164.04
<b>TA Approval Date:</b> 15 Jul 2011	<b>TA Signing Date:</b> 27 Dec 2011	<b>Fielding of First Consultant(s):</b> 15 Jun 2012	<b>TA Completion Date</b> <b>Original:</b> 30 Jun 2012 <b>Actual:</b> 30 Jun 2014  <b>Account Closing Date</b> <b>Original:</b> 30 Jun 2012 <b>Actual:</b> 31 Dec 2014	
<b>Description</b>				
<p>The situation in Bangladesh with respect to road safety is alarming. According to estimates by World Health Organization there is substantial underreporting and the actual number of fatalities may be around 20,000. The annual national loss related to road casualties is estimated to be about Tk50 billion (about \$715 million), which is nearly 2% of the country's gross domestic product. However, statistics by Bangladesh Road Transport Authority (BRTA) show a downtrend from 4,000 casualties during 2007–2008 to 2,500 casualties during 2014–2015. These significant discrepancies in the official statistics and independent estimates can be further attributed to the deficiencies in the road accident reporting and analysis system.</p> <p>The institutional system for road safety management in the country is largely dysfunctional. National Road Safety Council prepares the National Road Safety Strategic Action Plans every three years, but implementation is seriously hampered by lack of funding and inadequate implementation capacity. BRTA has a Road Safety and Enforcement Cell (RSEC) that is in charge of road safety components in BRTA operations and maintains an electronic accident database. However, it is understaffed and the analyses are hampered by the low quality of accident data coming from the police. The Roads and Highway Department (RHD) operates Road Safety Division (RSD) to address the engineering aspects of road safety along their highways, but has a limited capacity for systematic road safety work, no dedicated budget and almost no decision-making power and controlling functions. The Accident Research Institute (ARI) conducts road safety research to support development of accident-reduction programs. However, the outcome of this work is mostly focused on road safety awareness in the country. The Home Ministry has a dedicated highway patrol that operates on the national highways, but it is understaffed, and lacks essential equipment and specialized training.</p> <p>The TA was designed against above backdrop. The design was aligned with the ADB's country operations business plan for Bangladesh 2011–2013 and ADB's Sustainable Transport Initiative: Operational Plan and the Operational Plan for Improving Health Access and Outcomes under Strategy 2020.</p>				
<b>Expected Impact, Outcome and Outputs</b>				
<p>The expected impact of the TA was sustainable and cost-effective improvement of road safety in the country. The TA's outcome was most urgent and cost-effective road safety improvement programs prepared for design and implementation. Outputs included (i) road safety diagnosis, (ii) road safety programs on selected high-risk corridors, (iii) strengthening of the road safety management capacity of RHD and BRTA, (iv) development of road safety policies and business procedures, (v) sustainable funding arrangements for road safety, (vi) nationwide road safety improvement programs, and (vii) a draft DMF for a subsequent standalone road safety investment project. The TA processing team conducted consultations on the road safety issues, needs and TA tasks with major stakeholders, including MoRTB, RHD, BRTA, ARC, and selected NGOs.</p>				
<b>Delivery of Inputs and Conduct of Activities</b>				
<p>The TA was extended for two years (from 30 June 2012 to 30 June 2014) due to (i) initial delay in fielding of consultants, and (ii) accomplishing additional tasks covering road safety awareness, traffic enforcement and institutional strengthening through utilization of savings under the TA. The TA was implemented by two firms and five individual national consultants providing short-term inputs. The procurement of consultants was done in accordance with ADB's Guidelines on the Use of Consultants.</p> <p>The first firm (iRAP), in association with a local company FERBA Instrumentation Logistics, commenced services in June 2012, and completed in December 2013, providing 1.29 person-months of international and three person-months of national input. The firm (i) conducted road safety inspections on 1,300 km of National and Regional Highways (exceeding an initial TA target of 1,000 km) with automatic measuring of more than 50 road attributes in 100 meter intervals, (ii) calibrated and ran the model to compute relative accident risk factors along the inspected roads, and (iii) prepared road safety investment plans along the inspected highways. iRAP trained the RHD and FERBA staff both on the job during field inspections and through dedicated training sessions. The investment plans were compiled as an electronic online database readily accessible to concerned RHD staff. The services were delivered generally on time and of required quality. The consultant performance was satisfactory.</p>				

The second firm was a consortium consisting of Consia Consultants, Denmark (lead), HB Consultants and BETS Consultants (Bangladesh). The consortium commenced services on 15 October 2012 and ended on 31 December 2013, providing 10 person-months of international and 12 person-months of national input. Mobilization of the consortium was delayed by around five months due to the change of the team leader just before contract negotiations. This delay also caused postponement in the mobilization of iRAP as inputs were coordinated. The consortium (i) conducted road safety diagnosis, (ii) selected representative sample of high-risk road sections based on the iRAP assessment, conducted field level road safety audits together with RHD staff, and prepared road safety programs on selected sections basically enhancing iRAP program to the more detailed site-relevant level, (iii) conducted five national workshops, one study tour in two phases (in Thailand), and on the job training mainly for road safety audits for RHD staff; (iv) reviewed existing road safety policies and business procedures to incorporate road safety into the lifecycle of roads and provided comments; (v) proposed funding arrangements for road safety, and (vi) drafted nationwide road safety improvement programs, including cost estimate. The performance of the consortium was inconsistent. Their performance was satisfactory in selecting and road safety auditing of 300 km high risk road sections, conducting on-the-job training, and generating proposals to improve institutional arrangements for road safety. However, inputs on road safety policies and procedures and road safety data reporting and management were limited to the comments on the existing procedures, with some suggestions for improvement. Further, while the consortium presented good working examples of ICT-based accident data reporting mechanisms implemented in other developing countries, it fell short of developing a workable concept of similar system for implementation in Bangladesh.

To further enhance the TA outputs and consultation process with the government, ADB engaged five individual national consultants (total input 21 person-months) to provide services in the areas of road safety awareness, institutional strengthening, and traffic enforcement. The consultants formulated relatively simple, but effective proposals such as (i) issue of road safety handbook for drivers and instruction plates for passengers, (ii) mandating dedicate 'road safety' spaces on roadside billboards, and (iii) formation of community road safety groups to conduct community-based road safety campaigns. The consultants also conducted consultations with the government to inform, promote and get buy-in on institutional strengthening measures including (i) establishing National Road Safety Authority (NRSA) under the Prime Minister's Office (proposed by the consortium), (ii) installation of software in 500 Police Stations for online collection of road crash data; and (iii) establishment of multipurpose training center for road safety under BRTA. The consultants also provided recommendations and discussed with the authorities for implementation of such measures as (i) introducing of performance-based driving record, (ii) online and in-situ fine collection system, and (iii) post-crash rescue management system by involving Fire Service and Civil Defense Directorate. In addition, the consultant prepared a short-film and theme song for effective road safety awareness program being conducted in 21 districts under Sustainable Rural Infrastructure Improvement Project (SRIIP).<sup>1</sup>

The performance of the executing agency and ADB were satisfactory.

### **Evaluation of Outputs and Achievement of Outcome**

The outcome of the TA was mostly achieved. The most urgent and cost-effective road safety programs were prepared and approved by the government as a part of the review of the consultants reports, however, not yet adopted as an integral part of road safety policy of the government. ADB is mainstreaming safety measures developed under TAs as input to the consultants preparing future road investments to ensure developing of the safety-conscious designs.

Outputs of the TA were generally achieved. Specifically, (i) Road safety diagnosis was completed, focusing on selected aspects, such as business process in RHD. However, the diagnosis did not include a broader analysis of the road safety management system in the country; (ii) Road safety programs on selected high-risk corridors were developed both at the conceptual level (exceeding the 1,000 km target by about 300 km) and at the detailed level for around 300 km of roads. This was combined with successful on-the-job training for RHD staff. The provided inputs will be used under a stand-alone road safety project funded by the government (improvement of 144 black-spots; approved in January 2015), following further development and design by RHD; (iii) Road safety management capacity of RHD was increased mainly through the on-the-job training during road safety inspections and road safety audits, five workshops and one study tour. Even with subsequent transfer of some RHD (RSD) staff to other RHD divisions, acquired skills will be useful in RHD operations. On the other hand, road safety training to BRTA (RSEC) was provided only to available key staffs (two persons); (iv) Development of road safety policies and business procedures to incorporate road safety into the lifecycle of roads was limited to the comments on the existing procedures, with some suggestions for improvement; (v) The consultant proposed sustainable funding arrangements for road safety, and drafted nationwide road safety improvement programs including a draft Design and Monitoring Framework (DMF). However, the level of consultations with government was inadequate to have a meaningful buy-in and further commitment by the government for implementation of nationwide road safety program. In the course of TA implementation it became increasingly evident that establishing of well-resourced and powerful road safety body, such as National Road Safety Authority (NRSA) under the Prime Minister's Office would be crucial for coordinating, funding and

<sup>1</sup> ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of Bangladesh for the Sustainable Rural Infrastructure Improvement Project*. Manila

monitoring of the road safety work in the country. The consortium came up with specific proposals, and individual consultants initiated consultation with the government on the ways to establish NRSA.

### **Overall Assessment and Rating**

The TA is rated successful. The outcome was largely achieved, with government's formal approval of the developed programs still pending. All outputs were mostly achieved, and some initial shortfalls were later amended, particularly with the assistance of additional individual consultants. The implementation of some TA recommendations such as establishing of NRSA was already initiated. Road safety investment programs and recommendations developed under TA will guide future interventions in the sector, both engineering and non-engineering. The road safety diagnosis will contribute to further study and research.

### **Major Lessons**

Road safety work in Bangladesh remains at the sidelines of operations of the concerned agencies. They are not properly coordinated, resourced, funded and empowered. In this regard, creation of an independent, well-resourced, funded and empowered NRSA is critical. Should such body existed prior to the initiation of the TA, the uptake of TA recommendations could be much higher.

### **Recommendations and Follow-Up Actions**

ADB processing team should ensure that road safety investment programs and recommendations developed under the TA are taken as an input to guide future engineering interventions in the road sector. Key recommendations such as creation of the NRSA, road safety funding, and incorporation of road safety into lifecycle of roads could be included as covenants under future projects, or conditions for disbursement of subsequent tranches under multitranches financing facilities. Future investment projects should include road safety activities and related consultancy support including infrastructure, capacity building, and reforms/policy aspects.

TA=technical assistance

Prepared by: Mohammad Nazrul Islam

Designation & Division: Senior Project Officer (Transport), BRM