



Government of the People's Republic of Bangladesh

**Ministry of Road Transport and Bridges
Road Transport and Highways Division
Roads and Highways Department**

**TERMS OF REFERENCE
FOR
PROJECT ASSISTANCE CONSULTANCY (PAC) SERVICES
FOR
BANGLADESH ROAD SAFETY PROJECT (BRSP)**

October, 2023

ROADS AND HIGHWAYS DEPARTMENT (RHD)

BANGLADESH ROAD SAFETY PROJECT

Terms of Reference for Project Assistance Consultancy (PAC) Services

1. Introduction

The government of Bangladesh (GOB) has received financing from the World Bank to implement the Bangladesh Road Safety Project (BRSP). The project is being led by the Roads and Highways Department (RHD) to be jointly implemented with the Bangladesh Road Transport Authority (BRTA), Bangladesh Police (BP), and Directorate General of Health Services (DGHS). The project development objective is to help GOB build its road safety management capacity and achieve a targeted reduction in the country's road traffic injuries over the coming decade. The key components of the project are (see Annex I for details):

- ❖ Three distinct Multi-Sectoral pilot projects – one each on two high-risk, high-volume national highways with a focus on engineering and post-crash care, two distinct mixed-use urban areas with a high degree of urbanization and NMT for provision of facilities to reduce VRU fatalities, and road safety initiatives in selected districts.

- ❖ Priority road safety investments to support the expedited implementation of stand-alone priority activities as per the current NRSSAP in the areas of infrastructure, vehicle and user safety and post-crash care, and help establish best-in-class IT/MIS systems. Key activities would include mass action programs to improve infrastructure safety, integration of standalone information systems of vehicle registration, driver licensing and payments, development of a comprehensive national crash database system, replication of the Integrated Traffic Management and Incident Detection System (ITMIDS) being undertaken along the Dhaka-Chittagong Highway with modern technology to detect speed and traffic violations and enable real-time monitoring on some of the highway corridor pilots, strengthening highway police with modern enforcement equipment, implementation of trauma registries and Trauma System Improvement Programs (TSIP)¹ in four district hospitals, road Safety awareness and behavior change communication campaigns and a comprehensive commercial driver's training program.

- ❖ Technical assistance for capacity building and tools for all departments and implementing agencies to enable them to formulate a robust National Road Safety Program with targeted vision and concrete investment plans in the short, medium and long term. It would include: (i) development of a blueprint to establish a National Road Safety Authority; (ii) preparation of a National Road Safety Strategy and Investment Plan; (iii) Review of current driver licensing, vehicle registration, and inspection regime; (iv) development of rules/sub-national legislation for the Transport Act of 2018; (v) setting up a system of Road Safety Audit (RSA) accreditation/certification; (vi) review of the existing commercial driver training regime and development of a comprehensive driver training program; (vii) development of various technical manuals – traffic signs, vehicle inspection, crash investigation, driver testing etc; (viii) development of standard design and specification guidelines for set up of new Vehicle Inspection Centers; and (ix) a comprehensive training and capacity building program for all four agencies of PIU at HQ and field.

The RHD now seeks Project Assistance Consulting (PAC) services through a Consultant (firm) to support it in the successful implementation of the project.

¹ Based on the WHO Injury Surveillance and Trauma Quality Improvement Program guidelines



2. Objectives:

The main objectives of PAC services are as follows.

- (i) Provide PIU with high-quality technical guidance on road safety to recruit suitable consultants, contractors, suppliers, etc. to successfully implement the project.
- (ii) Act as Secretariat to the PIU and help with the review of reports and deliveries from multiple consultants related to the project.
- (iii) Develop high-quality reports, manuals and other road safety-related contents for consultation, discussions, meetings and onward submission to higher-level GoB authorities.
- (iv) Provide training to multiple stakeholders and develop trainers for post-project sustainability.
- (v) Help PIU monitor project progress toward achievement of targets and objectives.
- (vi) Assist PIU with training and knowledge enhancement to ensure sustained effort and governance on road safety after project completion.

3. Scope of Services

The Consultant shall guide and support the PIU to perform the following tasks and deliver related outputs as follows

3.1 Task 1: Project Inception

- (i) Thoroughly review relevant literature and data to develop a full grasp of road safety challenges, context, and key issues in Bangladesh.
- (ii) Review cross-cutting information, literature, and data from other sectors that have implications for road safety trends and future courses.
- (iii) Be familiar with the project through related documentation, including the World Bank's Project Appraisal Document (PAD), GOB's Development Project Proforma (DPP) and other contents.
- (iv) Fully understand project organization, timeline, stakeholders, available resources etc.
- (v) Deliver inception report with work plans and schedules to ensure achievement of project objectives and identify risks along with suggested risk mitigation measures.

3.2 Task 2: Procurement support

- (i) Formulate/review Terms of Reference (ToR), Expressions of interest (EOI), Request for Proposals (RFPs), Evaluation of Proposals of the Contracts for the consultancy and non-consultancy services to be hired for BRSP. Key consultancy and non-consultancy services to be hired are as follows.

- **For RHD**

- Consulting Services for:
 - A. Road Infrastructure Assessment,
 - B. Design of interventions,
 - C. Supervision of work, and
 - D. Environmental and Social Management
 - E. Land Acquisition and Resettlement Services
 - F. Financial Management Firm Services
 - G. Individual Procurement Specialist
 - H. Environmental Safeguard Advisor
 - I. Social Safeguard Advisor

▪ **For Bangladesh Road Transport Authority (BRTA)**

- A. BRTA system integration, design, supply, installation, testing, operationalization and training
- B. BRTA Technical Manual Development
- C. Regulations Review and NRSC Secretarial support, including formulation of national road safety strategy, preparation of action plan, a roadmap for national road safety authority etc.
- D. Non-Consultancy services for Delivery of Commercial Driver Training
- E. Non-Consultancy services for:
 - (i) Secretarial support to DRSC at Tangail and technical support
 - (ii) Secretarial support to DRSC at Bogura and technical support
- F. Public Awareness Campaign Consultancy Services

▪ **For Directorate General of Health Services**

- A. Consultancy services for development of Standards and Protocols for formal EMS system
- B. Consultancy services for Trauma Registry (TR) and Trauma System Improvement Program (TSIP) in 12 districts in three phases
- C. Non-consultancy services for BLS ambulance management/ operation, bike ambulance operations/management, call centre and other support services
- D. Non-consultancy services for bystander care and call centre
- E. Non-consultancy training services for Training of Doctors, Nurses and Sub-Assistant Community Medical Officers (SACMO)s on Advance Trauma Life Support (ATLS) and Basic Trauma Life Support (BTLS)

▪ **For Bangladesh/Highway Police**

- A. ITMIDS design, rollout, and support services
- B. Design and Supervision for Highway Police Training Centre Development
- C. Crash database system rollout and support services

(ii) Formulate/review Request for Bids (RFBs), including the technical specifications of the goods and works for the suppliers and contractors to be hired. Key goods and works packages are as follows:

▪ **Works**

- Engineering Improvement on National Road Safety Demonstration Pilots - N4 and N6
- Prioritized Mass Action Package 1 - North-Western Zone (Rajshahi, Rangpur)
- Prioritized Mass Action Package 2 - Central Zone (Dhaka, Mymensingh)
- Prioritized Mass Action Package 3 - South-Western Zone (Khulna, Gopalganj)
- Emergency room refurbishment at Tangail General Hospital, Rajshahi Medical College Hospital, and Mugda Medical College Hospital
- District interventions to Improve Road Safety - Bogura and Tangail
- Highway Police training center construction and ancillary works at Shibchar Madaripur.
- ITMIDS Civil works and control room refurbishment

- Goods
 - Integrated database software, maintenance, cloud hosting/server
 - (A) BLS ambulance supply; (B) Medicine and equipment supply for BLS ambulances
 - Motorcycle and accessories supply for motorcycle ambulance services
 - Hospital emergency room equipment supply/installation and medicine supply.
- (iii) Support the PIU in the review and evaluation of the submitted proposals and bids to ensure quality and value for money.

3.3 Task 3: Implementation support

- (iv) Review deliverables: Review all reports, notes, manuals, etc. submitted by other consultants engaged for RHD, BRTA, BP and DGHS.
- (v) Compliance checks: Assist the PIU in reviewing information, data, software, or goods delivered by the suppliers and check compliance with specifications to certify payment.
- (vi) Coordination: Assist PIU with coordination among the consultants and project management staff from different government agencies (set agenda, minutes of meetings, reports, meeting schedule, outside stakeholder meetings). Ensure that all activities on the pilot project (including engineering, enforcement and post-crash care activities) are coordinated for maximum impact). Draft MOUs between RHD and stakeholder departments on the use of equipment procured under the project to ensure their use on project designated roads/facilities.
- (vii) Management: Assist with the management of the entire project, including with the schedule, cost analysis, risk identification etc. Assist and advise PIU in contract management on all works, goods and services. Support PIU with the achievement of Project Development Objectives.
- (viii) Meeting: Join internal or external meetings as needed.
- (ix) Communication: Assist PIU with communication with both internal and external stakeholders as required (especially for planning, designing, conducting awareness programs; selection of right media including paid/social media platforms and tools, and all aspects necessary to prepare and disseminate the content).
- (x) Dissemination: Support the PIU to engage with all stakeholders during the course of the project on all outputs and help disseminate findings, project reports, manuals, publications etc. to them and to the general public (as required).
- (xi) Need based delivery: Prepare specific analysis, summary, or other reports requested by PIU or the World Bank team related to the project or road safety engagement in Bangladesh.

3.4 Task 4: Training and capacity building support

- (xii) Conduct training needs assessments/stakeholder consultations and/or surveys to identify the gaps and requisite areas of training
- (xiii) In consultation with the PIU, draft annual training plans and programs (from 2024 to 2028) to fulfil training needs
- (xiv) Deliver training programs in consultation with PIU and World Bank for PIU staff and representatives from stakeholder agencies, either singly or organized the same in partnership with in-country entities/academia, on relevant road safety themes
- (xv) Conduct Train-the-Trainer courses to develop trainers on safe system approach, road safety management, audit, engineering and related topics.



- (xvi) Formulate multi-year capacity-building plans for the PIU for agencies to build capacity beyond project.
- (xvii) Support PIU in organizing stakeholder workshops (as needed) with relevant road safety topics/themes

3.5 Task 5: Development of reports, manuals, guidance notes

The consultant shall develop relevant reports, guidelines, manuals (Road Safety Manual, Road Design Manual etc.), guidance notes (Note on illegal/slow-moving vehicle dumping practice along highways and solutions to manage the same by government agencies (Bangladesh Police/RHD) etc. for implementing agencies. The Consultant will organize Training, and workshops to present the draft manuals to each stakeholder department to obtain their feedback.

3.6 Task 6: Results and progress monitoring support

- (xviii) Progress Monitoring: Track the progress of all consultant deliverables and monitor targets. Identify issues, risks, and remedial measures.
- (xix) Result monitoring: Monitor and report progress of indicators as per result monitoring framework in the World Bank's PAD to the PIU for use in WB missions.
- (xx) User satisfaction surveys: The consultant needs to conduct surveys before start of civil works, at mid-term and end of project to measure the satisfaction of road users of the improved investments on safety.
- (xxi) World Bank information support: Provide mission related inputs, progress reports, presentations, and disbursement projections and participate in all mission meetings

4. Timeline and location of Services

The duration of the services will be **36 (Thirty-Six) months** from the time of the contract signature.

- (xxii) **The** services shall be delivered primarily in Dhaka, Bangladesh. However, in order to perform services as per scope of work, the consultants might have to visit other locations as directed by the RHD/stakeholder departments
- (xxiii) The consultant will be required to make their own arrangements for an office. Deployment arrangements are to be made in consultation with the RHD.
- (xxiv) On their part, RHD will attend to the following Client responsibilities:
 - (a) Provision of counterpart personnel to assist the consultant as required
 - (b) Facilitating access to relevant documents/records/files to carry out the services
 - (c) Assistance to the consultant in establishing essential contacts in concerned GOB areas and in gaining the cooperation of other GOB departments, agencies, and consultants as required for this assignment.
 - (d) Vetting of the consultants' main outputs and deliverables
 - (e) Conduct review meetings as and when required
 - (f) Assistance in accessing data and information of the relevant research and reports if available.
 - (g) Assistance in obtaining necessary visas, residence permits and customs clearances; Assistance in obtaining other necessary approvals, permits and licenses etc. not specified in the above.
 - (h) Security measures as adapted in another project where necessary.
 - (i) Counterpart officials and representatives.

5. Key Deliverables

S.No	Deliverables	By when (Months)
1.	Date of signing of Contract	T
2.	Submission of the inception report	T + 1
Task 1 – Procurement support		
3.	Formulate/review Expressions of interest (EOI), Request for Proposals (RFPs), especially the terms of reference of the consultants and non-consultancy service providers to be hired for BRSP	As needed
4.	Formulate/review Request for Bids (RFBs), including the technical specifications of the goods and works for the suppliers and contractors to be hired.	As needed
5.	Support the PIU to review and evaluate the submitted proposals and bids to ensure quality and value for money; support preparation of related contract documents.	As needed
Task 2 – Implementation support		
6.	Review all reports, notes, manuals etc. submitted by the consultants, contractors and suppliers.	Continuous
7.	Assist the PIU to review goods delivered by the suppliers and check compliance with specifications to certify payment.	As needed
8.	Assist with management of the entire project by including schedule, cost analysis, risk identification etc. Assist and advice PIU in contract management on all works, goods and services. Support PIU with the achievement of Project Development Objectives.	Continuous
9.	Assist PIU with communication with both internal and external stakeholders as required (especially for the conduct of road safety awareness programs)	Continuous
10.	Support the PIU to engage with all stakeholders during the course of the project on all outputs and help disseminate findings, project reports, manuals, publications etc. to them and to the general public (as required)	Continuous
Task 3 – Training and capacity building support		
11.	Report on training needs assessments/stakeholder consultations and/or surveys to identify the gaps and requisite areas of training	T + 4
12.	Annual training plans and programs for 2024-28 to fulfil training needs	T + 6
13.	Deliver training programs in consultation with PIU and World Bank for PIU staff, NRSC and representatives from stakeholder agencies.	As needed (based on annual training plans above)
14.	Conduct Train-the-Trainer courses to develop trainers on safe system approach, road safety management, audit, engineering and related topics	One annually

S.No	Deliverables	By when (Months)
15.	Report on multi-year capacity building plans to the PIU for agencies to build capacity beyond project.	T+12
Task 4 – Development of reports, manuals, guidance notes		
16.	Draft Road Safety Manual and Road Design Manual for RHD	T + 8
	<i>Workshop to discuss manuals with RHD</i>	T+9
17.	Traffic signs manual (BRTA)	T+11
	<i>Workshop to discuss manual with BRTA</i>	T+12
18.	Helmet standards, vehicle inspection manual/guideline/policy, inclusive vehicle design guide for women and disabled (BRTA)	T + 17
	<i>Workshop to discuss manual with BRTA</i>	T+18
19.	Note on illegal/slow-moving vehicle dumping practices along highways and solutions to manage the same by government agencies (RHD/Highway Police)	T+19
	<i>Workshop to discuss note with Highway Police</i>	T+20
Monitoring tasks		
20.	Report on progress of indicators as per result monitoring framework in the World Bank's PAD	15 days before every WB supervision mission
21	Conduct user satisfaction survey to measure the satisfaction of road users of the improved investments on safety	In 2023, 2025 and 2027
Reporting tasks		
22.	Report on training completed and dissemination workshops undertaken	Annual
23.	Progress report on support provided and tasks accomplished including on procurement, implementation and monitoring of all activities.	Every quarter
24.	Draft final report on all tasks incorporating all reports above	T + 30
25.	Final report after incorporation of UPPWD comments	T + 36
Note: <i>With particular reference to the workshops, the client will provide the space and all other arrangements will be made by the Consultant. A provisional sum of xx lakh BDT has been allocated for the training and all expenses for the training will be at cost as per actuals.</i>		

6. Key professionals and estimated person-months

Details of the expected minimum number of key personnel in the Consultant's team and their respective likely "person-month" inputs are provided immediately hereunder. It is anticipated that an overall quantum of **230 person months** of key professional and technical staff inputs shall be provided by the personnel to be mobilized by the selected Consultant, which shall be phased in accordance with a Work Program finalized with the Client during the Inception stage of these services. It should be noted that these are only indicative and Consultants shall have their own estimate commensurate with the tasks and overall responsive work and deliverable plan.

#	Key Personnel	Estimated Person-Months (Home Input)	Minimum Years of Overall Professional Experience
1	Road Safety Management Specialist cum Team Leader	30 (8)	20
2	Road Safety Data/iRAP Specialist	12 (2)	15
3	Road Safety Audit Specialist	12 (2)	15
4	Crash Database & Systems Specialist	6 (1)	15
5	ITS Specialist	6 (1)	15
6	Health Systems Specialist	6 (1)	15
7	Training Specialist	6	12
Sub-Total		78	
8	Deputy Team Leader cum Road Safety Specialist	32	15
9	Legal, enforcement and regulations Specialist	12	12
10	Highway Engineer	18	15
11	Monitoring & Evaluation (M&E) Specialist	12	10
12	Communications & Awareness Specialist	12	10
13	Road Safety Audit Specialist	18	10
14	Health Systems Specialist	12	10
15	Procurement/Contract Specialist	18	15
16	Training Specialist	18	10
Sub-Total		152	
Total		230	
<p><i>Note: The above mentioned individual and total "person-month" input estimates are indicative only and are not intended to be prescriptive. Adequate support staff shall also be provided by the Consultant to facilitate the operations of the nominated team during the services, but these support staff will not be taken into account in the client's evaluation of the staffing element of consultants' proposals.</i></p>			

7. Reporting

The Consultant shall report to the National Project Director of the Project Implementation Unit in the Roads and Highways Department, who is responsible for implementing all the project activities.

All the deliverables are required to be submitted in hard copy (*5 of each*) and soft copy format. Original data files are to be submitted alongside data in suitable format. The documentation done under this assignment shall be given in external hard disk of capacity (not less than 1 TB) to be supplied by the consultant.

8. Qualifications of key professionals

S. No.	Position	Minimum qualification	Specific required experience
1.	Road Safety Management Specialist cum Team Leader	Graduation in any discipline with Post graduate qualification in business/public sector management or related field. Plus, specialist high-level qualifications relevant to Road Safety management and enforcement functions. Minimum overall professional experience: 20 years	Should have a minimum 15 years of experience, including international exposure of at least 5 years in the road safety domain. He/she should have experience in at least 2 similar projects and should have sound, in-depth knowledge of national/international findings and directions in road safety strategies and action management, particularly in the regulatory, enforcement, monitoring & evaluation, planning, education, communication and advocacy aspects. Minimum 10 years of extensive national and minimum 5 years of international experience in road safety action planning, design and management, and in the facilitation of related training, capacity-building and institutional initiatives. High-level skills in strategic and technical advising, and in coordinating complex multi-agency action in a government or public-sector environment. Excellent communication skills, including report writing, are needed, and reasonable experience in conducting training is preferred. Leadership skills and the ability to succeed within a multicultural team are needed.
2	Road Safety data/ iRAP Specialist	Graduation in Engineering, plus other specialist high-level qualifications or demonstrable experience relevant to road safety Minimum overall professional experience: 15 years	5 years of experience with road safety data management and development of data-driven solutions to improve road safety conditions. Full familiarity with common data platforms and ability to process large amounts of data from different sources and formats. Should have at least 5 years of experience in using iRAP or similar systematic assessment tools for identification and proactive management of road user risks on highway corridors. Minimum 5 years of international experience in conducting iRAP road safety assessments.

S. No.	Position	Minimum qualification	Specific required experience
3	Road Safety Audit Specialist	Graduation in Engineering, Certification in road safety audit and demonstrable experience relevant to road safety Minimum overall professional experience: 15 years	Should have demonstrated experience (10 years) in leading road safety audits of national highways or similar classes of roads in South Asia. Should be familiar with best practices of road safety audit and black-spot management. Experience in conducting training on road safety is preferred. Minimum international experience – 5 years in conducting road safety audits. .
4	Crash database & systems specialist	Graduation in Civil/ Mechanical / Transport Engineering/Statistics/Applied Mathematics/IT with thorough knowledge of IT/Computer Software, plus other specialist high-level qualifications relevant to Road Safety (Relevant post-graduate qualifications are also desirable). Minimum overall professional experience: 15 years	An IT specialist with about 10 years of experience in data management or quantitative analysis related to transportation, public policy, especially with road crash information systems including user friendly interfaces (such as Microsoft Windows), relational/SQL type databases, GIS development, data management server, cloud computing platforms and web-enabled environments. Experience with training of system users is essential. Experience with crash databases in developing and transitional countries is desirable. Basic exposure of computer programming in multiple languages is required. Minimum international experience – 5 years in crash database system development.
5	ITS Specialist	Graduate in Engineering with specialization in Computer Science, Information Technology, Information Systems or the equivalent Minimum overall professional experience: 15 years	At least 8 years of experience in ITS project implementation and management for highway agencies. At least 2 years of experience in Urban ITS project implementation/management. Shall be fully knowledgeable in current IT hardware and software matters as well as ICT communications/connectivity matters, particularly as relevant to technical and business information management requirements in the public-sector context in Bangladesh. He shall have extensive professional experience (at least 10 years) and adequate professional skill in the implementation, operation and management of IT and ICT assets and facilities and in the facilitation of IT-based activity monitoring systems for program management purposes, preferably in public sector contexts. He shall have completed at least 2 major similar projects related to IT-ICT-MIS integration and related capacity development in government or public sector. Minimum international experience – 5 years in ITS implementation and management for highway agencies.

S. No.	Position	Minimum qualification	Specific required experience
6	Health Systems Specialist	Graduation in Medicine/Health/Public Health/, Post-graduation or higher qualification in public health, community health, preventive & social medicine (MPH, MD Community Medicine) Minimum overall professional experience: 15 years	Minimum of 15 years of post-qualification work experience in health systems strengthening, program planning, or implementation. Requires at least 5 years' experience in working in a post-crash care-related field. Minimum international experience – 3 years in planning, implementation and/or operation of health care systems, post-crash care systems.
	Procurement/contract specialist	Graduation in Engineering or Construction Science, Professional Certification in Procurement (MCIPS or Equivalent) will be preferred. Minimum: 12 years of professional experience	Min. 8 years of experience in preparation/management of construction contracts and procurements for international bidding financed by Multilateral Development Banks. Minimum international experience – 4 years in formulation of bid documents and contracts on MDB projects.
7	Training Specialist	Graduation in engineering, Communications/Public Relations and/or Management. Relevant experience in road safety advocacy and training is preferable. Minimum overall professional experience: 12 years	Should have at least 10 years of experience in developing and imparting road safety programs. Experience in South Asia is preferred. At least 5 years' experience in designing and delivering technical programs to officials in South Asia or best practice countries. Minimum international experience – 4 years in development and conduct of road safety training programs.
1	Deputy Team Leader cum Road Safety Specialist	Graduation in Civil Engineering, plus other specialist high-level qualifications or demonstrable experience relevant to road safety (relevant post-graduate qualifications are desirable).	Highly experienced in leading the implementation of large, multi-agency, multi-year road safety work programs. Specific experience in inspecting safety on high-risk roads, providing training, technology and support that will build and sustain national, regional and local capability and track road safety performance for assessing the benefits of their investments. Completion of at least three comparable assignments in Bangladesh or

S. No.	Position	Minimum qualification	Specific required experience
		Minimum overall professional experience: 15 years	developing countries. Experience conducting scientific analyses of road environment, vehicle and human factors contributing to road crashes and injuries. Hands-on experience of quantitative evaluations of safety interventions and outcomes is essential. Should have experience in the design, implementation and evaluation of infrastructure safety programs with operating road authorities and in safe system training of authority staff.
2.	Legal/Regulations and Road Safety Enforcement Specialist	Graduation in any discipline, preferably in Law. Experienced or former enforcement and/or traffic safety officer who has supervised traffic enforcement and road safety programs. . Minimum overall professional experience: 12 years	Sound knowledge of traffic rules, procedures, penalties, and administrative processes related to the implementation of traffic regulation. Should have at least 10 years of experience in leading the implementation of large road safety enforcement/traffic enforcement and compliance work programs. Ideally, someone with experience of highway patrolling and an overall understanding of the traffic police systems in Bangladesh or other countries. A demonstrable record of achievement in strengthening legal, administrative and operational systems and practices to reduce road trauma, with a focus on user behavior and motor vehicle regulation. Demonstrable experience in the delivery of strategic improvement projects and effective road safety capacity building and knowledge transfer, and completion of at least two comparable assignments in Bangladesh or South Asian countries. Familiarity with legislation, rules and regulations in Bangladesh. Experience in formulating enforcement drives/campaigns to enhance traffic compliance would be a plus.
3	Highway Engineer	Graduation in Civil Engineering with Post Graduation in Highway/Traffic and Transportation is mandatory. Minimum overall professional experience: 15 years	Minimum of 12 years of professional experience in road design is required. At least 5 years experience in highway project implementation or operation. Sound knowledge of road design standards across continents and familiarity of current developments and best practices. Fully familiar with road design tools and techniques. Should have completed at least two major highway assignments with road safety intervention in a similar capacity in a developing country.
4	Monitoring & Evaluation Specialist	Graduation in Management /Engineering/Economics and/or Business	He should have at least 5 years of extensive experience in project/program management systems and applications specific to Road Safety assessment programs. Minimum 5 years of extensive technical experience, preferably in a developed country, with systems and processes

S. No.	Position	Minimum qualification	Specific required experience
		Minimum overall professional experience: 10 years	dedicated to project-based progress/performance/results monitoring and outputs/outcomes evaluation. Expertise in the development of process frameworks and specifications for IT-supported Monitoring and Evaluation (M&E) functions and resources for technical and operational environments, interfaced with other MIS and decision-support systems and having multi-level reporting capability. Completion of at least two comparable assignments in Asia is essential.
5.	Communications & Awareness Specialist	Graduation in Communications /social marketing /Public Relations and/or Information Management with relevant experience in road safety advocacy Minimum overall professional experience: 10 years	The specialist should have at least 10 years of extensive experience in developing and executing proactive strategies and plans in community information and communication programs for public health/road safety campaigns or other comparable topics in Bangladesh. At least 5 years experience in designing and facilitating consultation and communication initiatives aimed at civil society stakeholders and/or at raising awareness in target community groups. Sound knowledge of current "public disclosure" and/or "right to information" provisions, and experience in integrating these in wider specific-purpose information and advocacy strategies. Completion of at least one comparable assignment in Bangladesh is essential.
6.	Road Safety Audit Specialist	Graduation in Engineering, Certification in road safety audit, plus other specialist high-level qualifications or demonstrable experience relevant to road safety Minimum overall professional experience: 10 years	Should have at least 10 years of demonstrated experience in road safety audits of national highways or similar class of roads in South Asia. Should be familiar with best practices of road safety audit, black-spot management and iRAP-type for identification and proactive management of road user risks on highway corridors.
7.	Health Systems Specialist	Graduation in Medicine/Health/Public Health Minimum overall professional experience: 10 years	Minimum of 10 years of post-qualification work experience in health systems strengthening, program planning, or implementation. Requires at least 2 years' experience in working in a post-crash care-related field.

S. No.	Position	Minimum qualification	Specific required experience
8	Procurement/ Contract Specialist	Graduation in Engineering or Construction Science. Professional Certification on Procurement (MCHIPS or Equivalent) is required. Minimum: 12 years of professional experience	Min. 8 years of experience as a procurement specialist for large infrastructure projects. Minimum 2 years of experience in contract management. Experience of managing complex and international procurements financed by Multilateral Development Banks (MDBs). Full familiarity of government procurement practices and context in Bangladesh.
9	Training Specialist	Graduation in Engineering/ Communications/ Public Relations and/or Management. Relevant experience in road safety advocacy and training is preferable. Minimum overall professional experience: 10 years	Should have at least 8 years of experience in developing and imparting programs in Bangladesh in a field related to road safety – engineering, enforcement, post-crash care, communication campaigns etc. At least 5 years experience in designing and delivering technical programs to officials in Bangladesh. Completion of at least one comparable assignment in Bangladesh is essential.

9. Contract Duration

- A. The consulting services will be carried out for 36 months from the date of signing the contract on an intermittent basis.



Annex I – Project component details

Component 1: Multi-sectoral road safety pilot projects: Safe-system based road safety pilot projects are designed to demonstrate the effectiveness of multi-sectoral interventions, coordinated and supervised under the aegis of a dedicated institutional body, on a high-risk, high-visible section of the network, for the targeted reduction in road deaths over the project period. These aim to enhance coordination between the road agencies (RHD, LGED, District authorities), Highway and Metropolitan Police, health agencies, and civil society. These measures will be independently monitored over the project period to determine the change in road safety outcomes, so that they can be replicated over the wider-geographical area through greater coordination between all stakeholders, and eventually scaled up country-wide. These measures will allow reducing disaster-related accidents in vulnerable zones to be reduced through safer and resilient design features and support the enhancement of emergency services enhancement with post-crash care (including for disaster-related emergency events). The traffic calming measures and road safety civil works will have a positive impact on congestion reduction and will facilitate NMT travel patterns. Three distinct pilot projects will be undertaken.

(a) National Highway Safe Corridor Demonstration Project: This activity aims to enhance coordination between RHD, Police, health agencies, and NGOs such as Traumalink on national highway safety. Based on a comprehensive road safety assessment of the highway network², two corridors that are representative of about 90 percent of the country's national highways - N4 from Gazipur to Elenga (70 km), and N6 from Natore to Nawabganj (70 km) - have been selected for this pilot for multi-sectoral interventions over the project period. N4 is a two-lane highway with a width of 7.3 m, average daily traffic (ADT) of 15,286, and six major intersections that are currently being upgraded to a 4-lane highway³; N6 is also a two-lane highway with a width of 7.3m, ADT of 9747 and six major intersections; both these highways are high-risk with fatality rates of 0.24 deaths/km and 0.08 deaths/km. Support for three sets of interventions are envisaged in these pilots: (i) engineering interventions including minor civil works, required road safety treatments (including provisions for parking and repair of vehicles) and physical traffic calming measures; (ii) targeted enforcement programs including equipment to modernize the capacity of the Traffic Police and highway patrol to manage speeding, axle-load control and to deter risky road user behavior through a combination of automated enforcement systems (surveillance cameras and control room, and electronic messaging) and physical (traffic calming, weigh stations) measures; formulation and execution of complementary targeted communication programs to enhance driver/user awareness on the selected sections as applicable in the vicinity of the selected highway corridor; (iii) deployment of free, on-call basic life support ambulances manned by trained personnel to provide pre-hospital care to crash victims and transport them to the nearest healthcare facility; improved spot bystander care to crash victims in collaboration with local NGOs and augmentation of emergency care in district hospitals or medical colleges along N4 and N6 corridors. This would include augmenting physical resources such as infrastructure, equipment, and supplies and updating knowledge and skills of doctors and nurses as per standards laid out in WHO essential trauma care guidelines.

(b) Urban road safety pilot project: This activity aims to enhance post-crash care (including for victims of disaster-related road accidents) and enforcement/awareness in the Dhaka Metropolitan Area. Key stakeholders for this pilot would be city health agencies, BRTA, and the Dhaka Metropolitan Police (DMP). As GOB is already implementing some urban improvement projects and bus route rationalization studies in the selected areas, the project will support iRAP assessments in these areas (together with the assessments under Mass Action programs under Component 2). As such these pilots will complement GOB's engineering improvements with post-crash care and targeted communication measures as under:

- i. **Motorcycle ambulances.** Given the traffic congestion in Dhaka city and the delayed ambulance response time, motor-cycle ambulances will be deployed at selected locations in Dhaka to provide medical support within minutes of the crash. These motor-cycle

³ Under the SASEC Road Connectivity Project



ambulances will be manned by trained emergency medical technicians and equipped with kits to stabilize crash victims till ambulances reach the crash spot. Basic Life Support (BLS) ambulances with trained personnel will be deployed to transport RTC victims to the nearest trauma care facility. Both the motorcycle ambulance and BLS ambulance services will be provided free of cost and will be accessible through a toll-free hotline linked to a call center. Exclusive ambulance lanes may be earmarked on major roads of the demonstration area for rapid movement of ambulances. The emergency department of the Mugda Medical College Hospital in Dhaka will be strengthened using GoB counterpart funding.

- ii. **Targeted Preventative Enforcement Programs and Communication Programs.** This activity would finance the development and implementation of targeted proactive deterrence enforcement plans, through the use of the equipment and patrol vehicles (purchased under Component 2 below), in combination with communication/awareness programs (under Component 2) to foster improved road user compliance in the pilot sites.

(c) District Road Safety Initiatives: This pilot is aimed at district-level ownership and implementation of road safety interventions that are often difficult to manage at the central level. Based on prioritization criteria, four districts namely Tangail, Bogura, Cumilla, and Jhenaidhah representing the divisions of Dhaka, Chottagram, Rajshahi, and Khulna were assessed. The districts of Tangail and Bogura that have the highest fatality rates have been selected for intensive road safety treatments. These two districts also have high motorization rates, high rates of economic development, and witness a high percentage of freight traffic. Tangail has a population density of 1056/sq.km and more than half of the population is female. N4 (selected in the NH pilot), which connects Dhaka to north Bangladesh passes through Tangail. Being home to the Jamuna Bridge connecting east and west Bangladesh, it experiences heavy traffic including freight movement. Bogura is a major connecting point for traffic movements to points north in Bangladesh. It is connected to Dhaka by N5 and Rajshahi by N502, both of which experience heavy traffic volumes. It has two hospitals – Bogura Medical College Hospital (with 500 beds) and Bogura Mohammad Ali Hospital (with 250 beds).

A combination of treatments listed above including corridor enhancements, local area safety improvements and NMT improvements, improved bystander care, and training in essentials of trauma care for hospital staff would be undertaken in these two districts. The capacity of District Road Safety Committees would also be developed to enable them to identify, prioritize and implement effective and evidence-based road safety interventions in their jurisdictions.

Component 2: Priority Road Safety Investments: This component seeks to support the expedited implementation of some stand-alone priority activities as per the provisions of the recently enacted Road Transport Act. The idea is to demonstrate quick wins that can be had under infrastructure, vehicle and user safety, and post-crash care, and help establish best-in-class systems. These infrastructure improvements, along with improved systems/facilities and templates would likely then provide the means to replicate the pilot projects to more corridors, urban areas, and districts. The proposed activities will help reduce disaster-related accidents in vulnerable zones with safer and resilient design features, support the enhancement of emergency services enhancement and better assess vulnerabilities (with an improved crash data system). The proposed activities will also have a positive impact on reducing congestion reduction and will promote NMT use. Key activities include:

- (a) Mass Action Programs to improve infrastructure safety (RHD):** This activity would include: (i) systematic road safety surveys and assessments (using iRAP) of the national highway (NH) and regional highway (RH) networks, (in five divisions of Bangladesh – Dhaka, Khulna, Rajshahi, Rangpur, and Mymensingh), totaling about 5,000 km, and selected roads under the urban area pilots in Component 1, selected based on an analysis of existing crash data; and (ii) mass action treatments (based on iRAP and other assessments) including (a) junction improvements for intersections identified as high-risk and high-volume, and (b) minor civil works and installation of road furniture, signage, and markings, especially on high-risk corridors and access roads connecting to these highways, at railway crossings, and bazaar areas. Specifically, at least 70 high-risk junctions of minor roads with national and regional highways that comprise around 10 percent of all the intersections on the national and regional highway network (with a benefit-cost ratio greater than two and involving minimal land

acquisition⁴) will be initially improved under the project. These are based on a recent comprehensive RHD study that assessed road safety hazards at 693 intersections, interchanges, flyovers, and side roads through road safety audits, traffic and speed studies, traffic violation data, and video data.⁵ More junctions fulfilling the set criteria may be selected for improvements based on the effectiveness of the measures undertaken. Efforts will be made to ensure that gender issues are suitably integrated into the road safety infrastructure activities. The design will also consider 32 customized conceptual and detailed designs with safety countermeasures already prepared to specifically enhance the safety of vulnerable road users.

(b) Crash Data Systems (Bangladesh Police): A national crash database system will be developed to replace the current Microcomputer Accident Analysis Package System (MAAP). This system will be primarily be used by the local police to enter crash data on-site, will pull and integrate data from other sources such as the District Health Information System 2 and the Open Medical Record System of the DHIS as well as road infrastructure, licensing, and vehicle registration database systems, provide analytical tools that respond to government needs and will facilitate the sharing of data among agencies and other stakeholders. Bangladesh police will enter into MOU for crash data sharing with the stakeholders to ensure that the agencies can make data-driven decisions to enhance road safety. This will be done based on a comprehensive study of current operating procedures/processes/MIS to identify software/ hardware/ apps and other resource requirements initially for piloting in the national, urban area, and district pilots and eventually for country-wide rollout. In addition, it would support GOB to standardize definitions, and methods for collecting data (including collecting and reporting data on weather and disaster-related road accidents which are increasing and must be assessed for better planning of road safety/emergency interventions), and to design a crash data format that responds to the capacities and needs of ministries, and to provide training. Data systems can also support the driver licensing database on the violation, where a violation is defined to include sexual harassment offenses.

(c) Integrated Traffic Management and Incident Detection System (ITMIDS, Bangladesh Police): The ITMIDS will be undertaken along with the National Highway Safe Corridor Demonstration Project Sites (N4 and N6) with CCTV, video, and audio feeds, Automatic Number Plate Recognition (ANPR) technology to detect speed and traffic violations and enable traffic flow analysis and real-time monitoring will be replicated along some of the highway corridor pilots.

(d) Strengthening Highway and Metropolitan Police: The activity would finance patrol vehicles, crash scene clearing equipment to extricate victims, radio communication equipment, chemical/alcohol detection kits, and enforcement-related training to the Highway Police to enhance proactive highway policing. RHD shall sign a Memorandum of Understanding (“MoU”) with the Bangladesh Police, which shall set forth the terms and conditions related to the use of vehicles and equipment for the implementation of activities.

(e) Integration of Standalone Management Information Systems (BRTA): This activity would seek to integrate BRTA’s existing information systems/databases of vehicle registration, driver licensing, and payments to streamline its operations and improve efficiency, based on a comprehensive study on the As-Is systems, the To-Be architecture, the gaps, timeline, and implementation arrangements. It will also be linked to the proposed crash database system.

(f) Road awareness and communication campaigns (BRTA): These overarching objectives of the awareness campaign are to establish safer road behavior and raise awareness on sexual harassment prevention and response. The campaign will be rooted in social norms and will be tailored for male and female users. This activity will seek to: (i) deliver customized awareness and communication campaigns along the pilot corridors and areas to enhance user awareness of road safety features and foster enhanced road user compliance; (ii) establish an annual program of campaigns focusing on the core risk factors, using quantitative and

⁴ Less than US\$1.3 million per junction

⁵ Study on Road Safety Hazards including Design of Countermeasures at Intersections on National and Regional Highways of Bangladesh - Final Report of DevConsultants Limited submitted to Road Design and Safety Circle, RHD, GOB, May, 2019

qualitative data to influence themes and messages; and (iii) awareness-raising on sexual harassment prevention and response.

(g) A comprehensive commercial driver's training Program (BRTA): The activity would involve reviewing the current driver training regime for commercial drivers and establishing a sustainable system including institutional mechanisms, the role of private sector/civil society, the development of training modules, driving license training of trainers, further school training of US\$0.15 million commercial drivers per year for three years following modified manuals by the trainers. Driving training will include modules on sexual harassment prevention and response.

(h) Trauma Registry and Trauma Quality Improvement (DGHS): This component will implement trauma registries and trauma system improvement programs (TSIP) in district hospitals in the districts with high road crash fatality based on the WHO Injury Surveillance and Trauma Quality Improvement guidelines. This intervention will be implemented in an integrated manner using existing human resources. This component aims to improve injury surveillance and enhance the quality of hospital-based trauma care.

(i) Training of Medical Providers on Essentials of Trauma Care (DGHS): Doctors, nurses, and sub-assistant community medical officers (SACMO) staffing emergency room in all UHCs, District Hospitals and Medical Colleges along National Highways N4 and N6 and in high-crash-risk districts will be trained on Advanced Trauma Life Support (ATLS) and Basic Trauma Life Support (BTLS).

Component 3: Technical Assistance. This component will focus on technical capacity building and tools for all departments and implementing agencies to enable them to formulate a robust National Road Safety Program with a targeted vision and concrete investment plans in the short, medium, and long term. It would include:

(a) Technical Assistance to BRTA – This activity would finance services and goods required for; (i) strengthening the NRSC secretariat housed in BRTA; (ii) development of a blueprint to establish a National Road Safety Authority, including its vision, mission, organizational structure, the draft Act and regulations; (iii) preparation of a National Road Safety Strategy and Investment Plan - consolidation of the current fragmented NRSC action plan into a coherent national strategy and develop investment plans for a prioritized set of actions for each of the implementation agencies. The strategy will mainstream gender and disability considerations and contain specific recommendations to improve road safety for women, girls, and persons with disabilities. The investment plan will provide an environmental and social management approach for the sustainability of any investment in infrastructure; (iv) review of the existing commercial driver training regime and develop a comprehensive driver training program; (v) development of various technical manuals, e.g., traffic signs, vehicle inspection, crash investigation, driver testing, vehicle design manual prioritizing women, the elderly and people with disabilities; (vi) developing rules/sub-national legislation for the Transport Act of 2018; (vii) the development of standard design and specification guidelines for the setting up of new Vehicle Inspection Centers; (viii) developing and operationalizing hazard maps that integrate both climate and safety risk vulnerability maps for better planning of road infrastructure maintenance or investments, and for improved emergency planning; (ix) the review of existing mechanisms to respond to sexual harassment in public transport to plan for its strengthening, and to assess the socioeconomic impacts of road injuries and deaths of men on women in the household; and (x) a comprehensive training and capacity building program for BRTA staff at HQ and in the field.

(b) Support to RHD: The activity would finance the setting up a system of Road Safety Audit (RSA) accreditation/certification; development of pre-construction, construction-stage, and post-construction RSA manuals; updates to design standards and the development of technical manuals, incorporating safer and climate-resilient features; and training and capacity building of RHD's road safety unit as well as other RHD staff based in HQ and the field.

(c) Support to the Highway Police: The project will support the construction of a Training Center complete with a training ground and demonstration road for practical training in Shibchar and Madaripur within land already identified by the Police. Training will include

modules on modern road safety enforcement and strengthening the response to reports of sexual harassment.

(d) **Support to the Directorate General of Health Services (DGHS):** The project will develop standards and protocols and operational policies for all aspects of pre-hospital and hospital-based emergency care services to set up a formal emergency medical service in the country in line with international standards as well as provide training and capacity building on road safety aspects and specific emergency measures during weather and disaster-related road accidents.

(e) **Training programs for all implementing agencies** – This activity would finance ~~technical, fiduciary, and safeguard experts~~, training and capacity building; goods, and consulting services for the Program Implementation Unit (PIU) as well as to all the implementation agencies to ensure smooth implementation of the project.

Annex II – Project implementation Arrangement

A National Road Safety Project Implementation Unit (PIU) under the Ministry of Road Transport and Bridges, headed by a National Project Director (NPD) will be in-charge of overall coordination and implementation responsibility of the project. This national PIU will be supported through four sub-PIUs established for each of the implementing agencies - Roads and Highways Department (RHD), Bangladesh Road Transport Authority (BRTA), Ministry of Health and Family Welfare (MoHFW), and Police, Ministry of Home Affairs (MoHA), headed by an Additional Project Director (APD) for satisfactory implementation of the project activities under their purview, including compliance with procurement, fiduciary and safeguard requirements. The PIU structure will be supported by a Project Implementation Committee (PIC) which will include technical heads of all implementing agencies to support working-level coordination across all agencies and to provide the linkages and updates of the project-financed activities to the secretariat of the National Road Safety Council. At an executive-level, a Project Steering Committee (PSC) headed by the Secretary, RTHD with participation from the secretaries of the three concerned ministries will oversee the overall project. Figure below gives the broad schematic of these arrangements.

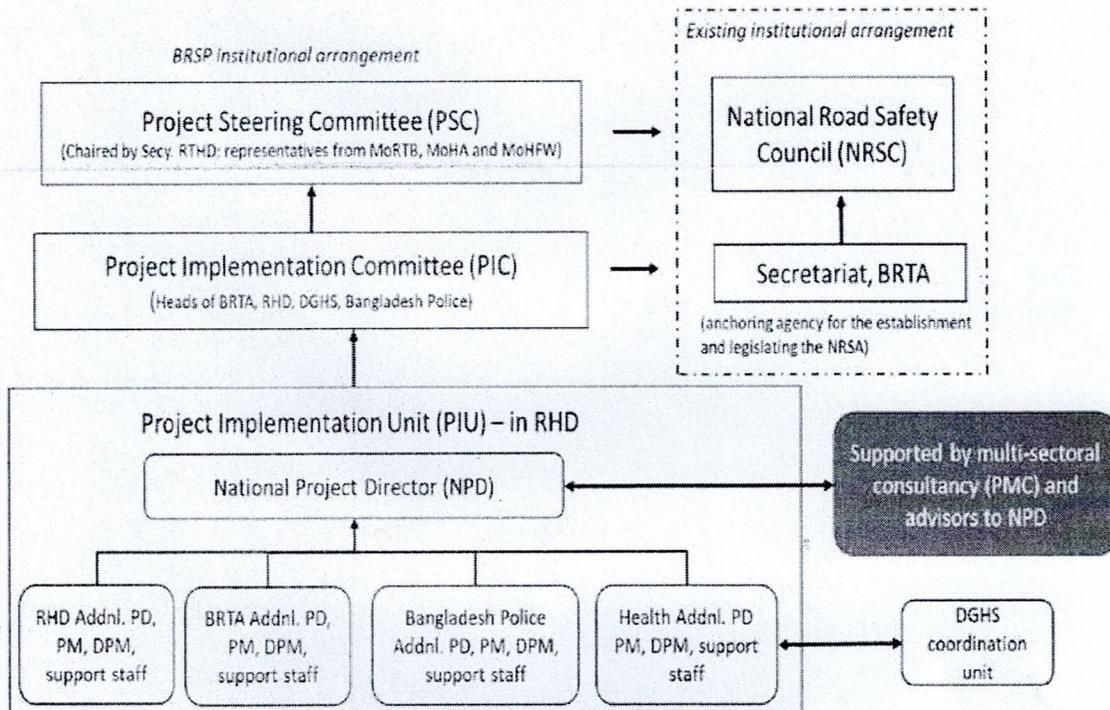


Figure 1: Implementation arrangements for Bangladesh Road Safety Project

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