

TERMS OF REFERENCE FOR CONSULTANTS

A. Objective of the Assignment

1. The knowledge and support technical assistance (TA) will support the Government of Mongolia in institutional strengthening and capacity building in road safety to facilitate implementation of the road safety policy and action plan developed under the previous TA for Development of Road Safety Policy and Action Plan.¹

B. Background

2. Mongolia is a landlocked country covering an area of 1.56 million square kilometers. It has a population of only 3 million people, 77% of whom live in urban areas. The primary mode of transportation is through an expansive but poorly maintained road network. In 2016, reported road crashes were the fifth leading cause of deaths in Mongolia, following cardiovascular diseases and gastrointestinal cancers, and adults 19–39 years old comprised more than 50% of road crash deaths and injuries.² Up to 50 schoolchildren are killed annually going to and from school. More than 75% of recorded deaths are outside Ulaanbaatar where post-crash response is lacking, drunk driving is twice as common, and the likelihood of seat belt use is 50% lower than in Ulaanbaatar.³ The vehicle fleet in Mongolia more than doubled during 2011–2016, and the number of reported crashes also increased from 21,302 to 46,712. Road crash deaths and injuries are likely to increase markedly over the coming decades as vehicle ownership continues to grow in Mongolia, thereby affecting medium- and long-term growth prospects by removing adults from the workforce and reducing the productivity of injured workers.⁴

3. Following the United Nations' declaration of the Decade of Action for Road Safety in May 2011, Mongolia issued its National Strategy on Traffic Safety, including an implementation plan for 2012–2020 targeting a 50% decrease in traffic-related deaths and serious injuries.⁵ However, the implementation arrangements had insufficient detail and did not come with enabling institutional frameworks, safety standards, or an enforcement plan for stakeholder agencies and institutions. To address these issues, the Asian Development Bank (ADB) provided TA to establish a comprehensive national road safety policy and a detailed action plan (footnote 1). When it is completed in September 2018, the TA will have (i) established a road safety steering committee and peer group; (ii) produced a white paper and a road safety policy and action plan; and (iii) provided introductory training to stakeholders in the five pillars for focus during the Decade of Action for Road Safety: road safety management, infrastructure, safe vehicles, road user behavior, and post-crash response.⁶

¹ ADB. 2016. *Technical Assistance Report to Mongolia for Development of Road Safety Policy and Action Plan*. Manila.

² Institute for Health Metrics and Evaluation. Mongolia. <http://www.healthdata.org/Mongolia>.

³ J. Demberelsuren et al. 2016. 474 Road Traffic Injuries and Deaths and Their Risk Factors in Mongolia. *Injury Prevention*. 22 (2).

⁴ World Bank. 2017. *The High Toll of Traffic Injuries: Unacceptable and Preventable*. Washington, DC.

⁵ World Health Organization. Global Plan for the Decade of Action for Road Safety 2011–2020. http://www.who.int/roadsafety/decade_of_action/plan/en; and Government of Mongolia. 2012. *The National Strategy on Traffic Safety*. Resolution No. 146. Ulaanbaatar. The Prime Minister of Mongolia and the minister of road, transportation, construction, and city development approved the strategy on 2 May 2012.

⁶ The project steering committee was established 4 July 2017. The committee includes representatives from the Law Enforcement University, Ministry of Education, Ministry of Finance, Ministry of Health, Ministry of Justice, Ministry of Road and Transport Development, and National Traffic Police.

4. The draft action plan identifies areas for improvement on road safety, particularly the need to enhance institutional arrangements, capacity, and expertise to implement the action plan effectively.⁷ Although introductory training sessions have been offered on the five pillars, including (i) engineering training for road safety practitioners; (ii) road safety awareness campaigning for organizations involved in road safety awareness; (iii) vocational driver training for bus and truck drivers and driving instructors; (iv) first aid training of trainer doctors and nurses for first responder training in local health centers; and (v) traffic police officer training to strengthen capacity related to road safety, additional specialized training on these topics for road safety staff is required. Capacity also needs to be strengthened in road safety education curriculum development in schools for teachers and school presentations by the National Traffic Police to support efforts to reduce crash-related deaths and injuries of schoolchildren. The road safety steering committee and peer group established under the ongoing TA should be fostered to refine the roles and responsibilities of each of the agencies, review the current institutions, and develop any recommendations for reform.

5. A crash database and crash investigation application was developed and pilot-tested under the ongoing TA in collaboration with the National Traffic Police to record crash data and generate police reports on tablets connected to a global positioning system. The database serves a secondary function as collected data can support the Ministry of Road and Transport Development (MRTD) and other stakeholders in identifying black spots⁸ or causes of crashes that need to be addressed. Data from crashes that occurred between January and June 2018 is currently being entered into the database; the National Traffic Police will roll out the database for full-time, daily traffic police operations by October 2018. Traffic police officers need to undergo training on crash scene analysis to refine their skills. The database's second function will be enabled in the future as more data is inputted over time and a sufficient amount of data is recorded for meaningful analysis. As this next phase in the application of the crash database approaches, the MRTD and other related agencies will need to build its capacity to analyze data and develop effective solutions.

6. Through the activities of the ongoing TA, it has become clear that Mongolia adopted many guiding documents related to road safety (such as manuals, standards, policies, and other guidelines) without adapting them to local circumstances. Guidelines that had been adapted to the local context were not implemented effectively or lacked sufficient policies to guide their implementation. These guidelines need to be analyzed further by the respective agencies to determine their relevance, application, and effectiveness in Mongolia's context; and recommendations for revisions should be developed.

7. During the ongoing TA, two public awareness campaigns were developed and implemented in collaboration with a campaign reference group representing the steering committee agencies on seat belt use along busy roads in Ulaanbaatar in November 2017 and in February 2018. These campaigns were conducted with nongovernment organizations to improve civil society engagement and enhance the effectiveness of the campaigns. Implementing related campaigns will reinforce the importance of seat belt use and further improve road safety outcomes. One related area that would benefit from increased public awareness is the use of child restraints, as people in Mongolia often do not use child restraints or use them incorrectly (e.g., forward-facing instead of rear-facing, placement in front passenger seat). Other related campaigns to

⁷ The draft Action Plan was submitted to ADB and the MRTD on 28 May 2018, and ADB and the MRTD have provided comments. The action plan will be included in the Final Report to be submitted to ADB and the MRTD on 31 August 2018.

⁸ A place where road traffic crashes have historically been concentrated.

consider are helmet use, drunk driving, and distracted driving (e.g., use of mobile phones while driving).

8. The ongoing TA has made progress in providing initial road safety support to the government and has identified additional needs such as institutional strengthening and capacity building to implement the road safety policy and action plan, requiring activities outlined in this 2018 TA.

C. Scope of Services

9. ADB will recruit the consultants and the MRTD, as the executing agency (EA), will be responsible for guiding TA activities and for coordinating relevant government agencies and organizations. The TA will be implemented over 21 months from September 2018 to May 2020.

10. ADB and the successful consulting firm will support Mongolia in institutional strengthening for road safety through:

- i. **Output 1: Road safety management capacity improved.** The ongoing TA has offered different introductory training sessions on the Decade of Action for Road Safety's five pillars. Output 1 will provide specialized trainings on the same topics for road safety staff within the MRTD as well as other government officials; other topics could be explored (e.g. positive reinforcement).⁹ It will also (i) develop road safety education materials for school presentations by the traffic police to improve their messaging for the target age groups in the schools; and (ii) design and implement a campaign on the use of child restraints. The TA will continue to support the coordination of the steering committee and peer group.
- ii. **Output 2: Crash analysis capacity improved.** Output 2 will support the MRTD, the traffic police, and other stakeholders in pilot-testing an independent crash investigation body in Mongolia and in analyzing crash scenes and crash data. It will focus on criteria for choosing themes and methods for identifying root causes for crashes, developing solutions, and reporting. The output will provide training on (i) inputting data to the database while at crash scenes; (ii) conducting crash data analysis to identify black spots, including a practical pilot test on road safety auditing at a black spot identified from the crash data; and (iii) developing appropriate solutions based on the analysis, such as education and awareness campaigns, infrastructure treatments, and road operations. etc.
- iii. **Output 3: Recommendations and revisions of national road safety guidelines and manuals developed.** Output 3 will review international best practices, existing documents, and implementation of the guidelines by analyzing the current guiding documents related to road safety to identify gaps or areas for revision.¹⁰ It will examine other external factors as necessary. Based on the analysis, the TA will develop recommendations for revisions and amend selected documents, as agreed with the respective agencies, to address Mongolia-specific issues.

⁹ These include traffic police, national police, legal officers, and health officials.

¹⁰ These include road design and operating standards, road safety audits, and vehicle inspection guidelines.

11. The minimum scope of works are below:

i. Road safety management capacity improved

- Develop and provide specialized training programs on the five pillars for focus identified under the Decade of Action for Road Safety¹¹ to supplement training already provided under the road safety policy and action plan TA¹² (March 2020);
- Develop road safety education materials for use by the police during its annual school visits to improve its messaging for the target age groups in the schools (August 2019);
- Implement a public awareness campaign on the use of child restraints (June 2019); and
- Continue support for the coordination of the steering committee and peer group established under the road safety policy and action plan TA (March 2020).

ii. Crash analysis capacity improved

- Review crash data to identify black spots and causes of crashes (May 2019);
- Develop a training program to improve crash data analysis for the MRTD and crash scene investigations for the traffic police (July 2019);
- Provide training on conducting black spot audits and crash investigations, including best-practice solutions (August 2019); and
- Develop and implement a pilot black spot audit in Ulaanbaatar City to apply skills developed in training (October 2019).

iii. Recommendations and revisions of national road safety guidelines and manuals developed

- Review international best practices, existing documents, and implementation of the guidelines to identify areas for detailed review (April 2019);
- Identify gaps or areas for revisions in the guidelines and/or their implementation (June 2019); and
- Prepare recommendations for revisions (October 2019).

D. Key Stakeholders

12. The relevant stakeholders for the TA are the EA, MRTD, and the agencies in the steering committee and peer group which includes representatives from the Ministry of Finance, the Ministry of Justice, the Ministry of Education, the Ministry of Health, the National Police Agency, the Traffic Police, the Law Enforcement University, the Ulaanbaatar Traffic Control Center, the Ulaanbaatar Transportation Department, the National Traffic Control Center.

E. Reporting Requirements

13. The consulting team will produce reports in English and Mongolian:

- i. inception report, which should include the work plan and work schedule 1 month after commencement of consulting services;
- ii. interim report, which should include work progress, road safety education materials, campaign debrief, list of guidelines for detailed review, and plan for crash analysis 7 months after commencement of services;

¹¹ World Health Organization. Global Plan for the Decade of Action for Road Safety 2011–2020. http://www.who.int/roadsafety/decade_of_action/plan/en.

¹² ADB. 2016. *Technical Assistance to Mongolia for the Development of Road Safety Policy and Action Plan*. Manila.

- iii. draft final report, which should include all deliverables 12 months after commencement of services;
- iv. final report 13 months after commencement of services; and
- v. monthly 1–2 page progress reports within 1 week of the end of the month.

F. Expertise Required

14. One consulting firm with a team of three international consultants. The firm will be recruited through quality- and cost-based selection (80:20), using simplified technical proposal. The firm should have sufficient expertise in road safety capacity building and institutional strengthening. Experience working in countries with similar challenges as Mongolia will be viewed favorably. The contract package is estimated to be \$290,000 and will be a partial lump-sum contract with milestone payments and with a provision for fixed out-of-pocket expenditures.

15. The national consultants will be recruited as individual consultants through individual consultant selection under partial lump-sum contracts with milestone payments and with a provision for fixed out-of-pocket expenditures.

16. The team composition of the consultants along with their estimated person-months is provided in Table 1 below:

Table 1: Team Composition

Consultants	Person–months
International	9.5
Road safety policy specialist and team leader	4.5
Road traffic crash analysis and remedial measures specialist	2.5
Road safety education and awareness campaign specialist	2.5
National	22.5
Road safety policy specialist and deputy team leader	6.0
Road traffic crash analysis and remedial measures specialist	5.0
Road safety education and awareness campaign specialist	5.0
Database and ICT system specialist	1.5
Project coordinator	5.0

G. International Consultants – Firm Recruitment

17. **Road safety policy specialist and team leader** (international, 4.5 person-months). The team leader will have at least 20 years of experience in coordinating, developing and leading road safety policy and action plans. Further, the specialist should have demonstrable experience in developing and running training and capacity development activities on road safety for multi-disciplinary stakeholders. The specialist should have a master’s degree or higher in a transport policy-related field and must have strong proficiency in English. Significant relevant work experience may be considered in lieu of a master’s degree. He or she will be responsible for leading and coordinating the international and national team members and will:

- i. consolidate all TA reports (inception, interim, draft final, and final reports);
- ii. coordinate the team work schedule, including integrating the survey and consultation needs across all project outputs;
- iii. plan and coordinate training and workshops, including trainer identification; and

- iv. coordinate knowledge product preparation and associated outputs.

With assistance from other team members, the team leader will also

- v. assess Mongolian road safety legislation, standards, national policy, and government programs against international best practice, and identify gaps in both the documents and implementation practices;
- vi. prepare recommendations for specific revisions to Mongolian road safety policies, guidelines, standards and practices in order to improve road safety outcomes and guide Mongolia towards international best practice;
- vii. work with deputy team leader to revise selected Mongolian road safety policies, guidelines, standards and practices as agreed with ADB and MRTD;
- viii. consult with the government agencies and all other relevant stakeholders regarding work done in road safety to date and key priority areas for capacity strengthening and development; and
- ix. coordinate and/or provide training on road safety analysis, policy interventions, and practices as required to enable the effective revision and implementation Mongolian Road Safety policies and practices.

18. Road traffic crash analysis and remedial measures specialist (international, 2.5 person-months). The specialist will have at least 15 years of experience in a transport discipline and 10 or more years of experience in crash analysis, road safety auditing and remedial measures, including experience working in developing countries. The specialist will have a bachelor's degree or higher in transport or a related field and strong proficiency in English. He or she will be responsible for analyzing contributory factors to crashes in Mongolia from the national traffic police crash data, as well as leading a pilot on road safety auditing. Tasks include:

- i. collecting crash data from the national police, analyzing trends and possible contributory factors and identifying black spot locations;
- ii. developing a training program to improve analysis of crash data and crash scene investigations for both MRTD and the Traffic Police;
- iii. providing training on road safety auditing throughout the different stages of the road lifecycle from design, to construction, to operation, as well as black spot identification and crash investigation;
- iv. identifying traffic engineering solutions and other remediations for black spots, on the basis of crash data and providing training in how to develop appropriate solution based on crash analysis and possible remedial measures;
- v. identifying, developing and leading a pilot black spot audit based on findings from reviewing crash data for key stakeholders to apply skills developed in training;
- vi. reviewing the national traffic engineering standard and providing recommendations at each stage of the road lifecycle that would improve traffic safety;
- vii. provide inputs to inception, interim, draft final, and final reports; and
- viii. producing the knowledge products on crash analysis, black spot identification and road safety auditing.

19. Road safety education and awareness campaign specialist (international, 2.5 person-months). The specialist will have at least 15 years of experience in road safety education and associated public awareness campaigns. The specialist should have experience in the development and adaptation of road safety education programs for different demographic groups. The specialist will have a bachelor's degree or higher in education and public awareness campaign or related fields and have strong proficiency in English. The specialist will be

responsible for developing the road safety education program and an associated public awareness campaign plan. The tasks of the specialist include:

- i. reviewing existing road safety education and public awareness campaigns in Mongolia and identify gaps or areas for improvement;
- ii. based on international best practice and the needs in Mongolia, develop road safety education materials for school presentations by the traffic police, including adapting presentation materials to be appropriate and effective for different target age groups;
- iii. conduct training and capacity development with the traffic police on education and communication with children of different age groups;
- iv. conduct a pilot of the road safety education for school children with the traffic police, using the developed materials;
- v. developing a monitoring method to evaluate the effectiveness of the road safety education and public awareness campaign;
- vi. designing and implementing a campaign on the use of child restraints, including identification of the key target audience and development of appropriate materials to effectively reach the audience;
- vii. providing training on road safety education and public awareness campaigns;
- viii. provide inputs to inception, interim, draft final, and final reports; and
- ix. producing materials for road safety education and awareness campaign.

H. National Consultants – Individual Recruitment

20. **Road safety policy specialist and deputy team leader** (national, 6 person-months). The deputy team leader will have at least 15 years of experience in transport safety policy with experience in developing associated action plans. The specialist will have a bachelor's degree or higher in a transport policy-related field and have intermediate level English. The specialist will be responsible for assisting the team leader in coordinating international and national team members and ensuring the national consultants complete their tasks on schedule. The tasks of the specialist will also include:

- i. assist with consolidating progress reports (inception, interim, draft final, and final reports);
- ii. coordinating the national team work schedule for integrating the survey, consultation, and outputs;
- iii. regularly liaise with MRTD and discuss TA progress and work plan; and
- iv. planning and coordinating training and workshops.

With assistance from other team members, the deputy team leader will also

- v. assist the international specialist in assessing Mongolian road safety legislation, standards, national policy, and government programs against international best practice, and identify gaps in both the documents and implementation practices;
- vi. assist the international specialist with identifying documents for detailed review;
- vii. assist the international specialist in preparing recommendations for specific revisions to Mongolian road safety policies, guidelines, standards and practices in order to improve road safety outcomes and guide Mongolia towards international best practice;
- viii. revise selected Mongolian road safety policies, guidelines, standards and practices as agreed with ADB and MRTD;

- ix. facilitate and organize consultation with the government agencies and all other relevant stakeholders regarding work done in road safety to date and key priority areas for capacity strengthening and development;
- x. organize training on road safety analysis, policy interventions, and practices as required to enable the effective revision and implementation Mongolian Road Safety policies and practices; and
- xi. translate the English version of deliverables into Mongolian; and translate Mongolian documents, data, and information into English.

21. **Road traffic crash analysis and remedial measures specialist** (national, 5 person-months). A national road traffic crash analysis specialist will have at least 10 years of experience in traffic engineering. The specialist will have a bachelor's degree or higher in transport or a related field and have intermediate level English. The specialist will be responsible for assisting the international specialist in analyzing the contributory factors for traffic crashes in Mongolia from crash data from the national traffic police. The specialist will:

- i. assist the international specialist in collecting crash data from the national police, analyzing trends and possible contributory factors and identifying black spot locations;
- ii. collect domestic traffic engineering standards and assist the international specialist in producing recommendations for improving traffic safety;
- iii. assist the international specialist in developing a training program to improve analysis of crash data and crash scene investigations for both MRTD and the Traffic Police and other relevant stakeholders;
- iv. assist the international specialist in providing training on road safety auditing throughout the different stages of the road lifecycle from design, to construction, to operation, as well as black spot identification and crash investigation;
- v. assist the international specialist in identifying traffic engineering solutions and other remediations for black spots, on the basis of crash data and providing training in how to develop appropriate solution based on crash analysis and possible remedial measures;
- vi. organize training activities for crash analysis and remedial measures;
- vii. organize pilot black spot audit including identification of key stakeholders;
- viii. assist the international specialist in producing the knowledge product on traffic crash analysis;
- ix. provide inputs to inception, interim, draft final, and final reports; and
- x. translate the English version of deliverables into Mongolian; and translate Mongolian documents, data, and information into English.

22. **Road safety education and awareness campaign specialist** (national, 5 person-months). The specialist will have at least 10 years of experience in designing education curricula and public awareness campaigns. The specialist will have a bachelor's degree or higher in education and communications or a related field and have intermediate level English. The specialist will be responsible for assisting the international specialist in developing the road safety education and campaign plan. The specialist will:

- i. organize a survey for the existing road safety education and awareness campaigns in Mongolia;
- ii. organize a survey for the existing road safety education campaigns and materials for school children, including identifying key challenges from the perspective of teachers, traffic police and other key stakeholders;

- iii. assist the international consultant in identifying key gaps or areas for improvement in road safety education;
- iv. assist the international consultant to produce road safety education materials for school presentations by the traffic police for different target age groups;
- v. organize training for the traffic police on conducting road safety education campaigns with children of different ages;
- vi. organize a pilot of road safety education in schools;
- vii. assist the international specialist in identifying the key target audience and producing a road safety education and awareness campaign on the use of child restraints, including materials for each target group;
- viii. assist the international consultant in conducting the road safety education and awareness campaign on the use of child restraints;
- ix. assist the international specialist in developing a monitoring method for evaluating the effectiveness of the road safety education and campaign;
- x. assist the international specialist in producing the inception, interim, draft final, and final reports on the road safety education and awareness campaign;
- xi. assist the international specialist to produce a knowledge product on the road safety education and awareness campaign;
- xii. provide inputs to inception, interim, draft final, and final reports; and
- xiii. translate the English version of deliverables into Mongolian; and translate Mongolian documents, data, and information into English.

23. Database and information and communication technology system specialist (national, 1.5 person-months). The specialist will have at least 15 years of experience in database development and 5 years or more of experience in transport-related database development. The specialist will have a bachelor's degree or higher in a data management-related field and computer programming, and strong proficiency in English. The specialist will be responsible for preparing the crash database and crash data management system. The specialist will:

- i. work with key stakeholders to review the implementation and use of the Accident Information System developed and implemented under TA 9137-MON database and equipment and understand any challenges or unmet needs;
- ii. make any required updates to the Accident Information System to ensure stakeholder needs relating to crash data collection and analysis and black spot identification are being met;
- iii. identify additional training requirements and provide training on the Accident Information System as needed;
- iv. provide inputs to inception, interim, draft final, and final reports; and
- v. translate the English version of deliverables into Mongolian; and translate Mongolian documents, data, and information into English.

24. Project coordinator (national, 5 person-months). The coordinator will have at least 10 years of experience in project coordination, including transport sector projects. The specialist will have a bachelor's degree or above and be fluent in English. The detailed tasks include:

- i. liaise with executing agency, consultants, contractors, and other stakeholders in the administration and monitoring of the project; and prepare relevant correspondence;
- ii. support missions and organize and participate in meetings;
- iii. facilitate and contribute to the works of international consultants as requested by the project officer;

- iv. provide project-specific inputs as agreed with relevant project officers;
- v. assist in translation and interpretation between English and Mongolian during meetings and for reports;
- vi. provide translation and interpretation services for daily activities;
- vii. manage the TA team office; and
- viii. contract and manage the TA team's transportation in the project field.