



Technical Assistance Report

Project Number: 49139-001
Policy and Advisory Technical Assistance (PATA)
July 2016

Mongolia: Development of Road Safety Policy and Action Plan

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 24 June 2016)

Currency unit	–	togrog (MNT)
MNT1.00	=	\$0.000516
\$1.00	=	MNT1,937.00

ABBREVIATIONS

ADB	–	Asian Development Bank
ICT	–	information and communication technology
MRT	–	Ministry of Roads and Transportation
TA	–	technical assistance
TASF	–	Technical Assistance Special Fund
UN	–	United Nations

NOTE

In this report, “\$” refers to US dollars.

Vice-President	S. Groff, Operations 2
Director General	A. Konishi, East Asia Department (EARD)
Director	R. Guild, Transport and Communications Division, EARD
Team leader	K. Kim, Senior Transport Specialist, EARD
Team members	G. Gerilla-Teknomo, Senior Transport Sector Officer, EARD
	S. Kotagiri, Social Development Specialist (Safeguards), EARD
	M. Macrohon, Associate Project Analyst, EARD
	A. Tiansay, Operations Assistant, EARD

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POLICY AND ADVISORY TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data		Project Number: 49139-001	
Project Name	Development of Road Safety Policy and Action Plan	Department /Division	EARD/EATC
Country	Mongolia	Executing Agency	Ministry of Road and Transportation
2. Sector		ADB Financing (\$ million)	
✓ Transport	Transport policies and institutional development		1.00
		Total	1.00
3. Strategic Agenda		Climate Change Information	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Climate Change impact on the Project	Low
4. Drivers of Change		Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Institutional development	No gender elements (NGE)	✓
Knowledge solutions (KNS)	Knowledge sharing activities		
Partnerships (PAR)	Civil society organizations Implementation		
Private sector development (PSD)	Conducive policy and institutional environment		
5. Poverty Targeting		Location Impact	
Project directly targets poverty	No	Nation-wide	High
6. TA Category:	B		
7. Safeguard Categorization	Not Applicable		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		1.00	
Policy and advisory technical assistance: Technical Assistance Special Fund		1.00	
Cofinancing		0.00	
None		0.00	
Counterpart		0.00	
None		0.00	
Total		1.00	
9. Effective Development Cooperation			
Use of country procurement systems	No		
Use of country public financial management systems	No		

I. INTRODUCTION

1. The policy and advisory technical assistance (TA) has been developed at the request of the Ministry of Roads and Transportation (MRT) of Mongolia. Through this TA, the Asian Development Bank (ADB) will support the MRT in preparing a national road safety policy and action plan. In September 2015, ADB and the MRT reached an understanding on the objectives, scope, implementation arrangements, cost, and terms of reference of the TA. The design and monitoring framework is in Appendix 1.¹ The TA is included in ADB's country operations business plan for Mongolia, 2015.²

II. ISSUES

2. Massive transport investments and policy interventions are needed to support efficient and sustainable development of all sectors in Mongolia. The development challenges to overcome in the transport sector include (i) reducing transport and logistics costs for trade, thereby fostering regional integration; (ii) enhancing transport efficiency and safety; (iii) promoting urban efficiency through improved urban transport infrastructure and services; (iv) developing cost-effective solutions to enhance rural accessibility; and (v) improving sector institutional, financial management, and human capacity—to ensure asset sustainability.

3. As travel increases and transport infrastructure expands to meet the mobility needs of economic growth, transport system efficiency and road safety become challenging issues, especially for developing countries. Many countries experienced a large increase in road casualties at the early stage of economic growth and motorization, when massive infrastructure development dominated policy objectives. The World Health Organization reports that road traffic crashes cost countries about 3% of their gross domestic product, rising to 5% in some low- and middle-income countries.³ These external costs directly affect the economy and quality of life for road users and their families, and negatively affect the efficiency of the transport sector. The introduction of a national road safety policy and action plan led by the central government was the most common and effective measure adopted by most of advanced countries in terms of road safety such as Japan, Sweden, and United Kingdom for reducing road casualties.

4. Introducing a national road safety policy and implementing an action plan require more policy will, institutional coordination, and social awareness of road safety issues than physical infrastructure investment. This will contribute to sustainable development and enhancement of quality of life.

5. **Road safety in Mongolia.** While economic growth has improved the quality of life and helped reduce the poverty rate, a rapid increase in mobility and the rate of motorization⁴—without an effective road safety management—have led to growing road safety concerns in Mongolia.⁵ According to the latest National Traffic Police of Mongolia data published in 2015,

¹ The TA first appeared in the business opportunities section of ADB's website on 21 October 2015.

² ADB. 2015. *Country Operations Business Plan: Mongolia, 2015*. Manila. The TA was reconfirmed in COBP, 2016.

³ WHO. 2016. *Global Status Report on Road Safety, 2015*. Manila.

⁴ A total of 190,469 vehicles were registered in Mongolia in 2009, jumping to 480,000 in 2014. Some 70% of the vehicles are registered in Ulaanbaatar, where 45% of Mongolia's population is concentrated.

⁵ Some 79.2% of vehicles are more than 10 years old; 52% of cars have steering wheels on the left and 48% have steering wheels on the right. More than 50% of Mongolia's automobile crash fatalities are pedestrians and motorcyclists. In 2008, the government considered the nearly 1,500 deaths and more than 5,000 injuries from 2004 to 2008 as having reached disaster levels.

597 deaths were caused by traffic crashes in Mongolia in 2013—above the world average.⁶ Rapid motorization and road expansion in Mongolia, especially in Ulaanbaatar, are expected to continue to exacerbate road safety problems. The social and nonquantifiable costs of road traffic deaths and injuries are expected to increase rapidly in Mongolia if the weak road safety policy remains. Many countries have proven that systematic interventions in road safety, with a national policy and action plan, can reduce road traffic deaths and injuries by more than 50%.

6. International and ADB initiatives. The United Nations (UN) General Assembly recognized road safety as an urgent global health issue and began the Decade of Action for Road Safety in 2011.⁷ ADB and other multilateral development banks have recognized the extent of the road safety problem in developing countries, and the potential for supporting interventions to alleviate this problem. They have (i) committed to establish a shared approach to managing road safety in support of the decade of action; (ii) established a working group on road safety to share best practices, coordinate efforts, and establish partnerships in road safety work; and (iii) started to explore ways of attracting additional financing for road safety. The UN has reaffirmed the importance of road safety by including it in one of the Sustainable Development Goals.

7. ADB established the Sustainable Transport Initiative Operational Plan in 2010⁸ to align its transport operations with Strategy 2020.⁹ The operational plan identifies road safety as one of the priority areas to be mainstreamed and scaled up in ADB's transport operations. To guide ADB's work on mainstreaming road safety, ADB approved the Road Safety Action Plan in 2012.¹⁰ More recently, the 14th Ministerial Conference on Central Asia Regional Economic Cooperation endorsed a commitment to road safety in the subregion on 25 September 2015 in support of the UN decade of action's target to reduce the number of fatalities on roads by 2020.¹¹

8. National initiatives and action needed. In 2012, the Government of Mongolia issued its National Strategy on Traffic Safety, including an implementation plan for 2012–2020 that targets a 50% decrease in traffic-related fatalities and serious injuries.¹² However, the implementation arrangements were not sufficiently detailed, and were not supported by enabling institutional frameworks, safety standards, or an enforcement and action plan for stakeholder agencies and institutions. If current road safety policy and management practices continue, traffic casualties will increase with growing motorization rates and the expanding road network in Ulaanbaatar and throughout the country.¹³ The establishment of a comprehensive national policy, supported by a detailed action plan to facilitate implementation, is urgently needed to

⁶ Road traffic crashes caused 21.0 deaths per 100,000 people in Mongolia in 2014, against the world average of 17.4.

⁷ UN. 2010. *General Assembly Resolution 64.255 (Improving Global Road Safety)*. New York.

⁸ ADB. 2010. *Sustainable Transport Initiative Operational Plan, 2011–2020*. Manila.

⁹ ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila.

¹⁰ ADB. 2012. *Road Safety Action Plan: An Overview*. Manila.

¹¹ The endorsed commitment includes (i) recognizing the road safety challenge in the region, (ii) tackling the challenge together as a region, and (iii) committing to joint actions. The joint actions include data collection, research, capacity development, road standards, vehicle safety, enforcement, awareness and education, post-collision care, partnership, and a regionally shared approach.

¹² The Government of Mongolia Resolution No. 146, The National Strategy on Traffic Safety, was signed by the Prime Minister of Mongolia and the minister of road, transportation, construction, city development on 2 May 2012.

¹³ The National Traffic Police reported that the newly improved arterial road (connecting Ginggiskahn Airport and Ulaanbaatar City, total 13.7 kilometers) recorded 20 fatalities in 2014. The main reasons for such crashes are lack of enforcement of speed limits, traffic light violations by drivers, and illegal crossings by pedestrians.

address this emerging public health threat and to achieve the 50% decrease target in traffic-related fatalities and serious injuries.

III. THE POLICY AND ADVISORY TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The impact of the TA will be a reduction in road crash casualties in Mongolia. The outcome will be the development of a national road safety policy and action plan.

B. Methodology and Key Activities

10. The TA will adopt the principles and five pillars framework of the UN Decade of Action for Road Safety in developing a national roads safety policy and supporting action plan. The principles include (i) a safety system approach, (ii) ownership at national and local levels, and (iii) an inclusive approach. The national framework includes five pillars: (i) road safety management, (ii) safer road design, (iii) safer vehicles, (iv) safe road users, and (v) post-crash care.

11. The TA will produce five outputs to establish an operational framework of traffic safety management in Mongolia:

- (i) **Output 1: Mongolia road safety white paper prepared.** A road safety white paper will be prepared to identify the road safety status in Mongolia, including crash records and patterns, and to analyze the institutional structure of the government agencies. The paper will serve as background information for developing the national policy and action plan.
- (ii) **Output 2: National road safety policy and road safety action plan prepared.** A national road safety policy and action plan will be prepared, including improvement targets, the legal and institutional framework on the five pillars. The action plan will be a set of time-bound actions to be taken by the ministries, the government agencies, and the traffic police.
- (iii) **Output 3: Road safety management capacity improved.** The TA will develop and conduct a road safety capacity development program for staff in the government, the traffic police, transport operators, and road users. Stakeholders for the five pillars will be identified and trained to implement the action plan generated by output 2. A training program and materials will also be developed for transport-related officers and agencies. A crash investigation and analysis training course will be developed and implemented for 50 traffic police.
- (iv) **Output 4: Information and communication technology-based crash database and investigation application developed and deployed.** An ICT-based crash database and crash investigation application will be developed and deployed to the traffic police.
- (v) **Output 5: Knowledge products disseminated.** Two knowledge products will be disseminated: (a) the national road safety policy and action plan of Mongolia, and (b) a crash database and investigation system as a good practice example.

C. Cost and Financing

12. The TA is estimated to cost \$1,100,000, of which \$1,000,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-V). The government will provide counterpart support in the form of counterpart staff, suitably furnished office space with utilities

and telecommunication access, training venue, information materials, data, maps, and other documents as needed, and other in-kind contributions.

D. Implementation Arrangements

13. The executing agency is the MRT. A steering committee will be formed with representatives from major ministries including the MRT; the Ministry of Education, Culture and Science; the Ministry of Population Development and Social Protection; the Ministry of Health and Sports; Ulaanbaatar Municipal Government; the National Traffic Police; and the University of Law Enforcement. The Department of Strategic Policy and Planning under the MRT will be in charge of the overall supervision of the TA to integrate the contributions from different ministries, agencies, and the traffic police through the national police academy. The implementation of the national road safety policy and action plan recommended by the TA will be monitored through ongoing transport sector loan projects in Mongolia¹⁴ as part of a capacity and quality assurance component of the loans.

14. The TA will be implemented over 14 months from 15 August 2016 to 14 October 2017 and will require a total of 16 person-months for four international consultants and 30 person-months for five national consultants. Specialists needed for the TA include (i) road safety policy specialist, (ii) road traffic crash analysis and remedial measures specialist, (iii) road crash database design and system specialist, (iv) database and ICT system specialist, and (v) road safety education and awareness campaign specialist. ADB will engage individuals to provide consulting services in accordance with its Guidelines on the Use of Consultants (2013, as amended from time to time). All procurement under the TA will be carried out in accordance with ADB's Procurement Guidelines (2015, as amended from time to time) while disbursement will be done in line with the *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). All equipment purchased will be turned over to the executing agency on completion of TA activities. The consulting team will administer training and seminars.

IV. THE PRESIDENT'S DECISION

15. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$1,000,000 on a grant basis to the Government of Mongolia for Development of Road Safety Policy and Action Plan, and hereby reports this action to the Board.

¹⁴ ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranchise Financing Facility Mongolia: Urban Transport Development Investment Program*. Manila.

DESIGN AND MONITORING FRAMEWORK

Impact the TA is Aligned with			
Road crash casualties in Mongolia reduced (Road Safety Policy) ^a			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome National road safety policy and action plan developed	By 2018 a. National road safety policy is adopted by the national government policy (2016 baseline: Not applicable) b. Road safety action plan is adopted to road safety related agencies (2016 baseline: Not applicable)	a. Annual report of the MRT b. Annual reports of the MRT and the National Traffic Police	Government changes may delay the adoption of the national road safety policy and action plan
Outputs 1. Mongolia road safety white paper prepared 2. National road safety policy and action plan prepared 3. Road safety management capacity improved 4. ICT-based crash database and crash investigation application developed and deployed 5. Knowledge products disseminated	1a. White paper is presented for government endorsement by 2017 (2016 baseline: Not applicable) 2a. National road safety policy and action plan presented for endorsement by parliament by the end of 2017 (2016 baseline: Not applicable) 3a. 100% of road safety staff ^a in the government and 50 traffic police gain road safety accreditation certificates for training by the end of 2017 (2016 baseline: Not applicable) 4a. National crash database established by the end of 2017 (2016 baseline: Not applicable) 4b. Mobile road crash investigation application developed and deployed by the end of 2017 (2016 baseline: Not applicable) 5a. Two knowledge products disseminated by the end of 2017: (i) National Road Safety Policy and Action Plan of Mongolia; (ii) ICT-based crash database and investigation system (2016 baseline: Not applicable)	1a. Annual reports of the MRT and the National Traffic Police 2a. Annual report of the MRT 3a. Consultant report and annual report of the MRT and the National Traffic Police 4a. Consultant report and annual report of the National Traffic Police 4b. Consultant report and annual report of the National Traffic Police 5a. Consultant deliverables	Lack of systematic road crash data may adversely affect the quality of outputs 1, 2, and 3

Key Activities with Milestones
<p>1. Mongolia road safety white paper prepared</p> <p>1.1 Recruit road safety consulting team and mobilize the team after notice to proceed (August 2016)</p> <p>1.2 Review road safety statistics, existing crash patterns and trends, and road safety-related institutional structure in Mongolia (September 2016–November 2016) KNS</p> <p>1.3 Conduct comprehensive consultation with road safety related departments and agencies to identify current road safety practices (September 2016–December 2016) KNS</p> <p>1.4 Prepare directions for road safety national policy and action plans (December 2016) KNS</p> <p>1.5 Prepare road safety white paper of Mongolia (December 2016) KNS</p> <p>2. National road safety policy and road safety action plans prepared</p> <p>2.1 Organize multiagency task force team with road safety related agencies (September 2016) GCD</p> <p>2.2 Review existing national policy and action plans (September 2016–November 2016)</p> <p>2.3 Prepare institutional arrangement for road safety management practices (October 2016–December 2016)</p> <p>2.4 Prepare road safety visions and targets (November 2016–December 2016)</p> <p>2.5 Produce a draft national road safety policy and action plan (November 2016–February 2017) GCD</p> <p>2.6 Consult with the Prime Minister's Office, and confirm the national road safety policy and action plan (May 2017) GCD</p> <p>3. Road safety management capacity improved</p> <p>3.1 Prepare workshops and training program (October 2016) GCD</p> <p>3.2 Prepare training materials (November 2016–January 2017)</p> <p>3.3 Organize and hold international workshop (March 2017) GCD</p> <p>3.4 Deliver training to road safety-related ministries, agencies, and the traffic police (May 2017) GCD</p> <p>4. ICT-based crash database and crash investigation application developed and deployed</p> <p>4.1 Review current road crash investigation application and data management practice (September 2016–December 2016)</p> <p>4.2 Prepare road crash investigation application and data management system recommendation (December 2016–February 2017) KNS</p> <p>4.3 Pilot test ICT-based road crash investigation application and data management system (April 2017) KNS</p> <p>4.4 Recommend final version of road crash investigation application and data management system (May 2017) KNS</p> <p>5. Knowledge products prepared</p> <p>5.1 Produce and publish the following draft knowledge products (June 2017) KNS:</p> <ul style="list-style-type: none"> (i) National road safety policy and action plan of Mongolia (ii) ICT-based road crash database and crash investigation system <p>5.2 Review final knowledge product and disseminate (August 2017) KNS</p>
<p>Inputs</p> <p>ADB: \$1,000,000</p> <p>Note: The government will provide counterpart support in the form of counterpart staff, suitably furnished office space with utilities and telecommunication access, training venue, information materials, data, maps, and other documents as needed, and other in-kind contributions.</p>
<p>Assumptions for Partner Financing</p> <p>Not applicable.</p>

ADB = Asian Development Bank, GCD = good governance and capacity development, ICT = information and communication technology, KNS = knowledge solutions, MRT = Ministry of Roads and Transportation, TA = technical assistance.

^a The Government of Mongolia. 2012. *Resolution No. 146, The National Strategy on Traffic*. Ulaanbaatar.

^b Staff from the Ministry of Roads and Transportation; the Ministry of Education, Culture and Science; the Ministry of Population Development and Social Protection; the Ministry of Health and Sports; the Ulaanbaatar Municipal Government; and the National Traffic Police.

Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
Asian Development Bank	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	352.0
ii. National consultants	128.0
b. International and local travel	40.0
c. Reports and communications ^a	50.0
2. Equipment ^b	
a. ICT-based road crash database system and equipment	100.0
b. Office equipment (computer and printer)	50.0
3. Training and workshop ^c	
a. Facilitators for international workshop ^c	80.0
b. Training program ^c	60.0
4. Surveys	50.0
5. Contingencies	90.0
Total	1,000.0

ICT = information and communication technology.

Note: The technical assistance (TA) is estimated to cost \$1,100,000, of which contributions from the Asian Development Bank are presented in the table above. The government will provide counterpart support in the form of counterpart staff, suitably furnished office space with utilities and telecommunication access, training venue, information materials, data, maps, and other documents as needed, and other in-kind contributions. The value of government contribution is estimated to account for 10% of the total TA cost.

^a Includes the cost of written translation of documents and interpretation.

^b To be administered by the international consulting team. Equipment will be turned over to the executing agency after completion of TA activities. Equipment includes personal computers and road crash data input devices. The quantity of equipment will be decided according to the actual demand during TA implementation.

^c Includes venue rental; interpretation, translation, and other logistics; and administration costs for conferences, seminars, workshops, training, research networking, and other high-level meetings. The item will be administered by the national consulting team. Training includes a study tour to Japan and the Republic of Korea.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Objective and Scope

1. The technical assistance (TA) will assist the Government of Mongolia in developing a national road safety policy and supporting road safety action plans.
2. The consulting team is expected to produce the following outputs or deliverables:
 - (i) Mongolia road safety white paper,
 - (ii) national road safety policy and action plan,
 - (iii) road safety management capacity development,
 - (iv) information and communication technology (ICT)-based road crash database and crash investigation application, and
 - (v) knowledge products on national road safety policy and action plan and ICT-based crash database and crash investigation application.

B. Consulting Team and Terms of Reference

3. The indicative areas of expertise and input are in Table A3.

Table A3: Indicative Expertise and Input

Positions	International Person-Months Required	National Person-Months Required
Road safety policy specialist	6	8
Road traffic crash analysis and remedial measures specialist	3	4
Road crash database design and system specialist (including ICT skills)	4	0
Database and ICT system specialist	0	4
Road safety education and awareness campaign specialist	3	6
Project coordinator	0	8
Total	16	30

ICT = information and communication technology
Source: Asian Development Bank estimates.

4. **Road safety policy specialist and team leader** (international, 6 person-months). The team leader will have at least 20 years of experience in transport safety policy and action plans. The specialist should have a master's degree or higher in a transport policy-related field and strong proficiency in English. He or she will be responsible for leading and coordinating 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 to integrate 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.
5. With assistance from other team members, the team leader will also
 - (i) assess Mongolian road safety problems, crash records, national policy, and government programs;

- (ii) prepare the Mongolian road safety white paper;
- (iii) consult with the government and agencies to organize the task force team and identify road safety national policy and action plan priority areas;
- (iv) prepare the road safety national policy and develop action plans for recommendation to the government;
- (v) provide training on the road safety national policy and action plans;
- (vi) organize international workshop for road safety policy for Mongolia; and
- (vii) lead preparation of the knowledge products.

6. **Road traffic crash analysis and remedial measures specialist** (international, 3 person-months). The specialist will have at least 15 years of experience in transport and 10 or more years of experience in crash analysis, including 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. Tasks include

- (i) collecting crash data from the national police, and analyzing trends and possible contributory factors;
- (ii) producing priority road safety policy and action plan items based on road crash data and the five pillar of the United Nations Decade of Action for Road Safety;
- (iii) preparing traffic engineering solutions for black spots, sections, or areas on the basis of crash data; providing training in crash analysis, remedial measures, and safety audit;
- (iv) reviewing the national traffic engineering standard and providing recommendations for improving traffic safety;
- (v) contributing to the production of the inception, interim, draft final, and final reports; and
- (vi) producing the knowledge products on crash analysis.

7. **Road crash database design and system specialist** (international, 4 person-months). The specialist will have at least 15 years of experience in database development and 10 or more years of experience in transport-related database development. The specialist will have a bachelor's degree or higher in a data management or computer programming-related field and have strong proficiency in English. The specialist is responsible for preparing the crash database and the crash data management system. The tasks of the specialist include

- (i) reviewing the existing crash database and crash data management practices;
- (ii) producing the requirements of the crash database and crash data management system for crash patterns and types;
- (iii) defining the user interface requirements for the crash database and data management system;
- (iv) conducting a pilot test of the crash database and crash data management system;
- (v) contributing to the production of the inception, interim, draft final, and final reports; and preparing reports on the crash database and data management system;
- (vi) providing training on the crash database and data management system; and
- (vii) producing the knowledge product on the crash database and data management system.

8. **Road safety education and awareness campaign specialist** (international, 3 person-months). The specialist will have at least 15 years of experience in road safety education and associated public awareness campaigns. 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;
- (ii) identifying safety target groups and producing road safety education and public awareness campaign schemes and materials for each target group;
- (iii) developing a monitoring method to evaluate the effectiveness of the road safety education and public awareness campaign;
- (iv) conducting a pilot road safety education and public awareness campaign;
- (v) providing training on road safety education and public awareness campaigns;
- (vi) contributing to the production of the inception, interim, draft final, and final reports; and
- (vii) producing materials for road safety education and awareness campaign.

9. **Road safety policy specialist and deputy team leader** (national, 8 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. The tasks of the specialist will also include

- (i) consolidating progress reports (inception, interim, draft final, and final reports);
- (ii) coordinating the team work schedule for integrating the survey, consultation, and outputs;
- (iii) planning and coordinating training and workshops; and
- (iv) coordinating knowledge product preparation and outputs.

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

- (i) assist the international specialist in assessing Mongolia's road safety problems, crash records, national policy, and government programs;
- (ii) assist the international specialist in preparing the road safety white paper together with other team members;
- (iii) facilitate and organize consultation with the government and agencies to organize the task force team, and identify the road safety national policy and action plan priority areas;
- (iv) assist the international specialist in preparing the recommended road safety national policy and action plan to the government;
- (v) organize training on the road safety national policy and action plan;
- (vi) assist the international specialist in organizing an international workshop for road safety policy for Mongolia;
- (vii) assist in producing a knowledge product on the road safety national policy and action plan; and
- (viii) translate the English version of deliverables into Mongolian; and translate Mongolian documents, data, and information into English.

11. **Road traffic crash analysis and remedial measures specialist** (national, 4 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 and analyze the crash trend, patterns, and possible contributory factors;
- (ii) assist the international specialist in producing priority road safety policy and action plan items according to the five pillars of the United Nations Decade of Action for Road Safety;
- (iii) assist the international specialist in preparing traffic engineering solutions for black spots, sections or areas based on the crash data;
- (iv) organize training on crash analysis and remedial measures;
- (v) collect domestic traffic engineering standards and assist the international specialist in producing recommendations for improving traffic safety;
- (vi) assist the international specialist in producing inception, interim, draft final, and final reports;
- (vii) assist the international specialist in producing the knowledge product on traffic crash analysis; and
- (viii) translate the English version of deliverables into Mongolian; and translate Mongolian documents, data, and information into English.

12. **Database and information and communication technology system specialist** (national, 4 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) review the existing crash database and crash data management practices;
- (ii) produce the requirements for the crash database and crash data management system for crash patterns and types;
- (iii) prepare the user interface requirements for the crash database and crash data management system;
- (iv) conduct a pilot test of the crash database and crash data management system;
- (v) produce inception, interim, draft final, and final reports of the road crash database and data management system;
- (vi) provide training on the crash database and data management system; and
- (vii) produce a knowledge product on the crash database and crash data management system; and
- (viii) translate the English version of deliverables into Mongolian; and translate Mongolian documents, data, and information into English.

13. **Road safety education and awareness campaign specialist** (national, 6 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 campaign in Mongolia;
- (ii) assist the international specialist in identifying safety target groups and produce a road safety education and awareness campaign scheme and materials for each target group;
- (iii) assist the international specialist in developing a monitoring method for evaluating the effectiveness of the road safety education and campaign;
- (iv) conduct a pilot road safety education and awareness campaign;

- (v) organize training on the road safety education and awareness campaign;
- (vi) assist the international specialist in producing the inception, interim, draft final, and final reports on the road safety education and awareness campaign;
- (vii) produce a knowledge product on the road safety education and awareness campaign; and
- (viii) translate the English version of deliverables into Mongolian; and translate Mongolian documents, data, and information into English.

14. **Project coordinator** (national, 8 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 the following:

- (i) liaise with executing and implementing agencies, 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 on a daily basis; and
- (viii) contract and manage the TA team's transportation in the project field.

C. Reporting Requirement

15. The following reports will be required:

- (i) an inception report, which should include review results and work directions 1 month after commencement of consulting services;
- (ii) an interim report, which should include consultations and major findings and recommendations 4 months after commencement of services;
- (iii) a draft final report, which should include all deliverables 8 months after commencement of services; and
- (iv) a final report 10 months after commencement of services.