



Completion Report

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Mongolia: Institutional Strengthening for Road Safety

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TECHNICAL ASSISTANCE COMPLETION REPORT

TA Number, Country, and Name: TA 9579-MON: Institutional Strengthening for Road Safety		Amount Approved: \$400,000.00	
		Revised Amount: Not applicable	
Executing Agency: Ministry of Road and Transport Development	Source of Funding: Technical Assistance Special Fund (TASF 6)	Amount Undisbursed: \$8,834.84	Amount Used: \$391,165.16
TA Approval Date: 3 September 2018	TA Signing Date: 11 October 2018	TA Completion Date	
		Original Date: 31 May 2020	Latest Revised Date: 30 November 2020
		Financial Closing Date: 2 February 2021	Number of Extensions: 1
TA Type: Knowledge and support TA	Nature of Activity: Capacity development	TA Arrangement: Not applicable.	

Description

The technical assistance (TA) was prepared to support the Government of Mongolia, through the Ministry of Road and Transport Development (MRTD), in institutional strengthening and capacity building for road safety and to help implement the road safety policy action plan developed under the TA for the Development of Road Safety Policy and Action Plan.¹ The action plan identified the need for institutional strengthening and capacity building in road safety.

Expected Impact, Outcome, and Outputs

The TA was aligned with the overall development impact: road crash fatalities and serious injuries in Mongolia reduced. The expected outcome was that implementation of the road safety policy and action plan was improved. Outputs included: (i) improved road safety management capacity, (ii) improved crash analysis capacity, and (iii) developed recommendations and revisions of national road safety guidelines and manuals.

Implementation Arrangements

MRTD was the TA's executing agency and provided counterpart staff, access to meeting facilities, office accommodation, and access to data and information. ADB administered the TA, including recruitment and supervision of consultants. The original TA implementation period was for 20 months from September 2018 to May 2020. The planned consulting inputs were 32.0 person-months (9.5 person-months of international and 22.5 person-months of national). An international consulting firm, FRED Engineering SRL from Italy in a joint venture with PTV Transport Consult GmbH from Germany, was engaged on April 2019 through quality- and cost-based selection method. Five national consultants were engaged using individual consultant selection and mobilized in May 2019. In February 2020, an extension of TA implementation period by 6 months to 30 November 2020 was approved because of the delay in some training activities due to the coronavirus disease (COVID-19) pandemic. All consulting contracts were also extended. The increase in contract costs were covered by contingencies.

All consulting contracts were completed in November 2020. At completion, the consulting firm and national consultants utilized 10.85 person-months and 23.66 person-months, respectively. The increase in person-months was necessary as consultants had to modify the implementation approach for some of the remaining activities during March to November 2020 due to restricted mobility of experts because of the COVID-19 pandemic. Road safety training courses that were initially organized as face-to-face had to be changed to online training which required additional time inputs to (i) prepare training materials suitable for online delivery; (ii) coordinate with consultants, participants, and government counterparts; (iii) conduct online test sessions; and (iv) develop online surveys and feedback mechanisms.

Conduct of Activities

Output 1: Road safety management capacity improved. Aligning with the needs of MRTD and other stakeholders, the consultants successfully conducted 10 road safety trainings covering the five pillars under the United Nations (UN) Decade of Action for Road Safety. Training included: (i) best practices on road safety management; (ii) crash data analysis and crash scene investigation for traffic police of Ulaanbaatar; (iii) road safety auditing and black spot treatment; (iv) best practices on vehicle technical inspection; (v) procedures and organization of driving learning; (vi) professional driving safety management; (vii) workshop on school road safety programs; (viii) workshop on the use of the road safety teacher's manual; (ix) emergency services organization and procedures; and (x) crash data analysis and crash scene investigation for northern, southern, western, and eastern regions. Training was conducted from June 2019 to October 2020 in Ulaanbaatar and eight provinces of the northern, southern, eastern, and western regions of Mongolia. Eleven out of 17 of the training activities were conducted face-to-face. There are 14 dedicated road safety

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

staff in government who participated in the training, including four staff at the Office of the National Road Safety Council under MRTD, three in the Internal Monitoring Division of the Transport Police Department (TPD) and seven in the Crime Prevention Division of the TPD. The training also included other public and private road safety stakeholders in Mongolia. A Road Safety Education Teacher's Manual was also developed, serving as a guide for teachers of junior classes 3 and 4 for planning, developing, and teaching road safety as part of the training program issued by the Ministry of Education, Culture and Science and the Transport Police. Public awareness campaigns were originally designed to focus on child restraints; however, this was changed at the request of MRTD to focus on adult seatbelt wearing due to the low overall rate of wearing seatbelt in Mongolia. The campaign was carried out over a month through outdoor and social media, as well as radio. Key messages like 'Buckle for Life' were developed and launched in November 2019, with participants from MRTD, Association of Mandatory Insurance (AMI), National Police Department, National Trauma and Orthopedic Research Center, Songinokhairkhan Police Department, *Khoroo* governor delegates, and The University of Internal Affairs. Findings from pre- and post-campaign surveys demonstrated the campaign's positive impact on observed seatbelt wearing rates. Because of this initiative, future campaign partnership between MRTD and AMI was recommended.

Output 2: Crash analysis capacity improved. An analysis of the road crash database prepared by the staff from the National Traffic Police from 2017 to mid-2019 showed inconsistencies and gaps in the database, particularly the lack of information needed to geolocate crashes, which limited the analysis that could be conducted to identify blackspots. Despite the limitations of the data, a summary blackspot analysis was completed. Only crashes with casualties (fatalities and serious injuries) were considered in the analysis. A key finding from the analysis was that 91% of crashes occur within Ulaanbaatar city; however, only 29% of fatal crashes occur in the same area. This is probably due to lower vehicle speeds in the city. Additional details on identification of blackspots and causes of crashes, including blackspot audits, are included in the Blackspot Study Report. Trainings to improve crash data analysis and blackspot audits and crash investigations were conducted.

Output 3: Recommendations and revisions of national road safety guidelines and manuals developed. The following national road safety guidelines and manuals were reviewed to determine consistency with international best practice: national road safety guidelines, national vehicle inspection guidelines, and national road design standards. Specific recommendations to improve the guidelines were provided. For road safety audits, it was noted that several aspects from the international guidelines could be considered in the Mongolia road safety audit checklists: (i) crash data, (ii) road section design (alignment, sight distances, visibility, cross-section design), (iii) pedestrian infrastructure (mainly crossing aids), (iv) the road restraint system, and (v) signalization. For vehicle inspection guidelines, the structure of the vehicle inspection manuals, framework conditions, and contents of the vehicle inspection with relevance to road safety were reviewed; and an improvement of the Mongolia vehicle inspection guidelines was proposed.

Technical Assistance Assessment Ratings

Criterion	Assessment	Rating
Relevance	Outputs and outcomes were well aligned with Mongolia's global road safety commitments and national road safety strategy including: (i) commitments to implement the UN Decade of Action for Road Safety 2011–2020; (ii) the Mongolia National Strategy on Traffic Safety resolution No. 146 and accompanying implementation plan; (iii) the comprehensive national road safety strategy and action plan developed with a TA from ADB (footnote 1); (iv) Mongolia country partnership strategy (2016–2020 and 2021–2024); and (v) the Regional Road Safety Strategy for Central Asia Regional Economic Corridor (CAREC) countries, 2017–2030. The TA was appropriately designed to contribute to reduction in road fatalities and serious injuries. The public awareness campaign under Output 1 was designed to focus on child restraints; however, this was changed to adult seatbelt wearing due to the low overall rate of seatbelt wearing in Mongolia. TA outputs continue to be relevant and will strengthen Mongolia's capacity to implement the UN Second Decade of Action for Road Safety which was proclaimed in 2021.	Relevant
Effectiveness	The TA outputs and outcome were achieved. Under Output 1, the TA targeted training 100% of road safety staff in government. The TA went well beyond the dedicated road safety staff to incorporate cross sectoral stakeholders corresponding to all five pillars under the United Nations (UN) Decade of Action for Road Safety. 572 participants from various government institutions including MRTD, TPD, transport police units of several provinces, Transport Prosecutor Office, University of Internal Affairs, vehicle technical inspection centers, registration and monitoring center of the National Police Agency, National Road Transport Center, AMI representatives, Ministry of Health, National Public Health Department, National Trauma and Orthopedic Research Center, Mongolian National Defense University,	Effective

Criterion	Assessment	Rating
	University of Science and Technology, representatives from public health centers of Ulaanbaatar and various provinces, engineers and directors from the private sector, directors from driving schools were trained. Targets to develop road safety education teacher's manual, and to implement public awareness campaign on seatbelt wearing were achieved. Under output 2, the TA achieved the implementation of a pilot black spot program at a major road junction in Ulaanbaatar with high recorded number of road crashes. Training was provided to 272 (25%) staff from the National Traffic Police (NTP) and MRTD on analyzing crash data. Although the training included 100% of staff from NTP and MRTD directly responsible for analyzing crash data and road safety policy, it only partially achieved the target which set to train at least 80% of all NTP and MRTD staff. Output 3 was achieved; this included reviewing and providing recommendations to improve road safety audit guidelines, vehicle inspection guidelines, and road design manual. Based on the outputs completed, implementation commenced or completed for at least five actions under the road safety action plan, achieving the outcome (Appendix 1 and Appendix 3).	
Efficiency	The TA delivered the outputs and outcome within the budget. The reports and trainings were all delivered by November 2020. Although the TA was extended by 6 months due to delays in training activities because of the COVID-19 pandemic, the consultants were able to deliver the activities using alternative online tools and mechanisms, all within the period of extension and within the TA budget.	Efficient
Overall Assessment	The TA was well aligned with Mongolia's and ADB's commitments to implement both the previous (2011–2020) and current (2021– 2030) UN Decade of Action for Road Safety, Mongolia's National Strategy on Traffic Safety, Mongolia's road safety action plan, the CAREC regional road safety strategy (2017–2030), and Mongolia country partnership strategy. The TA outcome was achieved. There were no major design flaws with the TA. The short delay in implementation due to the COVID-19 pandemic was addressed by delivering capacity building training online.	Successful
Sustainability	A total of 572 stakeholders participated in the training programs, reinforcing the importance of cross-department collaboration. Knowledge gained by participants will support commitments and effects to tackle road safety more effectively in Mongolia. The National Road Safety Council, headed by the Prime Minister, and the working office established under MRTD shows Mongolia's commitment to improving road safety, enhancing sustainability of the TA outcomes. Further, ADB is continuing to support Mongolia in addressing road safety through TA 6591 ² and TA 6894, ³ including providing support to implement recommendations from this TA and further strengthen road safety management capacity. These efforts will support the sustainability of outputs delivered through this TA. Outputs from the TA are relevant toward supporting the global goal of halving of number of fatal and serious injuries from road crashes under the second decade of action on road safety.	Most Likely Sustainable

Lessons Learned and Recommendations

Design and/or planning	DMF indicators should be clearly defined and realistic. The target in DMF indicator 1a (Training provided to 100% of road safety staff in the government, and traffic police gained road safety accreditation training) could have been improved by including a definition of "road safety staff" and a target for other sector stakeholders. The training activities went beyond the DMF target of dedicated road safety staff to incorporate all elements of the road system. DMF indicator 2a. (80% of MRTD and National Traffic Police staff increased their knowledge and skills on analyzing crash database data by August 2019) was too ambitious particularly as there are staff within MRTD and TPD who do not work on crash data or analysis. If the intention was 80% of staff involved in crash analysis, the indicator should have included a definition of "staff."
Implementation and/or delivery	A lesson from the COVID-19 pandemic is to build in adequate contingencies as well as flexibility for delivering capacity building activities virtually during implementation.

² ADB. 2020. *Technical Assistance for Enhancing Road Safety for Central Asia Regional Economic Cooperation Member Countries (Phase 2)*. Manila.

³ ADB. 2021. *Technical Assistance to Mongolia for Preparing the Regional Road Development and Maintenance – Phase 3 Project*. Manila.

Management of staff and consultants	Due to the COVID-19 pandemic, the international firm of consultants transitioned to remote work almost seamlessly, activities were effectively coordinated through the consulting firm's team leader. The arrangement of engaging a firm of international consultants avoided challenges that would have been presented in managing several individual international consultants. National consultants had good prior road safety knowledge, having participated in the implementation of previous ADB road safety TA and effectively supported data and information collation and coordination of TA activities with stakeholders.
Knowledge building	The approach to capacity building was effective. The program covered all UN road safety pillars and involved blending discussions on theory on improving road safety, field-based training, and sharing good international practices and experiences of what would work to improve road safety in Mongolia's context. Road safety practitioners who participated in the trainings demonstrated good understanding in the topics covered, based on results of post-training surveys.
Stakeholder participation	High participation in training was achieved by bringing training closer to participants. The training was delivered in eight provinces in northern, southern, western, and eastern Mongolia.
Partnership	MRTD established an awareness campaign committee to guide seatbelt awareness campaign. The committee was effective in supporting the design and the successful implementation of the seatbelt awareness campaign and is expected to support future road safety awareness campaigns in Mongolia.
Replication and/or scaling up	TA outputs will be disseminated through knowledge events in collaboration with CAREC and the Asia Pacific Road Safety Observatory (APRSO). The training manuals were provided to MRTD to enable scaling up, and the training and public awareness campaigns can be replicated by other DMCs to improve their national road safety policies and guidelines.
Other lessons	Road safety audits are completed on ADB funded projects but are not currently mandatory for all road projects in Mongolia. Road safety audits should form an integral part of road project lifecycle including from draft design, detailed design, pre-opening to early operation. Road safety inspections of roads in operation must be undertaken to identify the road safety related challenges and features to prevent crashes. This could include wider implementation of road assessment programs such as the International Road Assessment Program (iRAP).

Follow-up Actions

It is recommended to consider stand-alone road safety pilot projects including blackspot remediation programs with cost-effective countermeasures implemented to reduce serious crashes which would reduce congestion, loss of life, and consequent negative impacts in Ulaanbaatar and other regions in Mongolia. Such projects would also more effectively address non-infrastructure road safety issues such as improving post-crash response.

A new national road crash data management system is urgently required to collect, manage, and analyze crash data.

It is recommended to trial the use of the Road Safety Education Teacher Manual in collaboration with the Ministry of Education, Culture, Science and Sports in areas with high road safety risks, and subsequently include this in school curricula. Development of a Road manual targeting 6-8- and 10–12-year-old students is strongly recommended.

A national certification process for Mongolian Road Safety Auditors should be implemented under the responsibility of the MRTD. This will strengthen the capacity to ensure road safety audits are undertaken on all road projects in Mongolia. The government should also consider an amendment to the road law to make road safety audits mandatory.

It is recommended that MRTD and other stakeholders responsible for road safety continue to organize regular capacity building programs covering the UN Decade of Action and the Safe Systems Approach.

Prepared by:

Michael Anyala

Rebecca Stapleton

Designation and Division:

Senior Road Asset Management Specialist, Transport Sector Group, Sustainable Development and Climate Change Department *

*On short-term assignment with East Asia Department (EARD)
Transport Specialist, Sustainable Infrastructure Division, EARD

Results Chain	Performance Indicators with Targets and Baselines	Achievements ^b
2. Crash analysis capacity improved	2a. 80% of MRTD and National Traffic Police staff increased their knowledge and skills on analyzing crash database data by August 2019 (2018 baseline: not applicable) 2b. Pilot black spot audit implemented by October 2019 (2018 baseline: not applicable)	2a. Partially Achieved. 100% of staff from MRTD and PTD (14 staff) that are directly responsible for crash analysis reported increased knowledge and skills on crash data analysis and crash scene investigation. At least 25% of MRTD and National Traffic Police staff from Ulaanbaatar and from each of the eight provinces in northern, southern, western, and eastern regions received training in crash data analysis and crash scene investigation. 2b. Achieved. Pilot black spot audit was implemented at an important junction in the center of Ulaanbaatar, near Sukhbaatar Square, at the intersection of Chinggis Avenue and Peace Avenue, at which 19 crashes occurred here during 2017 to 2019.
3. Recommendations and revisions of national road safety guidelines and manuals developed	3. At least three national guidelines and manuals reviewed and recommendations developed by October 2019 (2018 baseline: not applicable)	3. Achieved. Three guidelines and manuals were reviewed, and recommendations provided: (a) road safety audit guidelines; (b) vehicle inspection guidelines; and (c) road design manual.
Actual Key Activities with Milestones 1. Road safety management capacity improved 1.1 Develop and provide specialized training programs on the five pillars for focus identified under the Decade of Action for Road Safety to supplement training already provided under the road safety policy and action plan TA (March 2020). 1.2 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). 1.3 Implement a public awareness campaign on the use of child restraints (June 2019). 1.4 Continue support for the coordination of the steering committee and peer group established under the road safety policy and action plan TA (March 2020). 2. Crash analysis capacity improved 2.1 Review crash data to identify black spots and causes of crashes (May 2019). 2.2 Develop a training program to improve crash data analysis for the MRTD and crash scene investigations for the traffic police (July 2019). 2.3 Provide training on conducting black spot audits and crash investigations, including best practice solutions (August 2019). 2.4 Develop and implement a pilot black spot audit in Ulaanbaatar City to apply skills developed in training (October 2019). 3. Recommendations and revisions of national road safety guidelines and manuals developed 3.1 Review international best practices, existing documents, and implementation of the guidelines to identify areas for detailed review (April 2019). 3.2 Identify gaps or areas for revisions in the guidelines and/or their implementation (June 2019). 3.3 Prepare recommendations for revisions (October 2019).		
Actual Inputs Asian Development Bank: \$391,165.16 Government: Counterpart support in the form of counterpart staff; suitably furnished office space with utilities and telecommunications access; training venue; information materials, data, maps, and other documents as needed; and other in-kind contributions.		

FSP = front seat passengers; MECSS = Ministry of Education, Culture and Science; MRTD = Ministry of Road and Transport Development; TA = technical assistance.

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

^b ADB. 2020. *Institutional Strengthening for Road Safety*. Consultant's Report. Manila (TA 9579-MON).

Source: Asian Development Bank.

TECHNICAL ASSISTANCE COST

Table A2.1: Technical Assistance Cost by Activity
(\$'000)

Item	Amount	
	Original	Actual
1. Consultants	315.20	325.58
2. Seminars, workshops, training	50.00	65.59
3. Miscellaneous admin. and support costs	1.00	0.00
4. Contingency	33.80	0.00
Total	400.00	391.17

Source: Asian Development Bank.

Table A2.2: Technical Assistance Cost by Fund
(\$'000)

	TASF	Total Cost
1. Original	400.00	400.00
2. Actual	391.17	391.17
3. Unused	8.83	8.83

TASF = Technical Assistance Special Fund.

Source: Asian Development Bank.

CONTRIBUTION OF THE TECHNICAL ASSISTANCE TO THE IMPLEMENTATION OF THE ROAD SAFETY ACTION PLAN

Action No.	Description of Action included in the Road Safety Action Plan	TA Contribution
5	Use and implement best practices from 3–5 countries that have good experiences on road safety in ensuring traffic safety in Mongolia.	Best international practices and experiences learned from other countries were disseminated through specialized road safety trainings.
25	Conduct a scientific analysis on the current traffic safety status with help of professional organization.	Analysis of available crash data was completed and black spots and causes of crashes identified.
50	Annually conduct surveys on points where traffic crashes frequently happen on the state road networks. Conduct systematic Road Safety Audits to determine the deficiencies, all adverse findings to be eliminated within a reasonable time frame, and place necessary road signs and markings and provide public with warnings and information.	Pilot study and practical training on road safety auditing were completed.
112	Develop road traffic safety training module program and organize informal form, develop and distribute relevant manual, and reflect in the curriculum of the preschool and high school education institution.	Specialized road safety training program covering the five UN road safety pillars was developed and training was implemented. Road Safety Education Training Manual was developed for Junior Classes 3 and 4 and in alignment with Order No. 185 issued by the Ministry of Education, Culture and Science.
125	Develop traffic safety education curriculum and implement it all levels of education.	
129	Regularly conduct campaigns about child seat, helmet, safety belt which are prevent to harm to the life and health during the traffic accident.	Public awareness campaign on seatbelt wearing was successfully completed.

Source: Asian Development Bank. 2020. *Institutional Strengthening for Road Safety*. Manila. Consultant's final report. (TA 9579-MON).