

The logo for the Asian Development Bank (ADB), consisting of the letters 'ADB' in a white serif font on a black square background.

ADB

Technical Assistance Report

Project Number: 48186-005
Transaction Technical Assistance (TRTA)
June 2018

Mongolia: Regional Road Development and Maintenance Project

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

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 4 May 2018)

Currency unit	–	togrog (MNT)
MNT1.00	=	\$0.0004165
\$1.00	=	MNT2,401.00

ABBREVIATIONS

ADB	–	Asian Development Bank
km	–	kilometer
MOF	–	Ministry of Finance
MRA	–	Mongolian Road Association
MRTD	–	Ministry of Road and Transport Development
RAM	–	road asset management
RTDC	–	Road Transport Development Center
TA	–	technical assistance

NOTE

In this report, "\$" refers to United States dollars.

Vice-President	Stephen Groff, Operations 2
Director General	Amy S.P. Leung, East Asia Department (EARD)
Director	Sujata Gupta, Officer-in-Charge, Transport and Communications Division, EARD
Team leader	Masahiro Nishimura, Senior Transport Specialist, EARD
Team members	Arlene Ayson, Operations Assistant, EARD Alice Corinna Bañez, Operations Assistant, EARD Grace Cruz, Associate Operations Officer, EARD Oyunchimeg Erdene, Principal Transport Specialist, Central and West Asia Department (CWRD) Anand Ganbaatar, Transport Officer, EARD Katherine Guy, Transport Specialist, EARD Jurgen Sluijter, Senior Transport Specialist, CWRD

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

CONTENTS

	Page
I. THE PROPOSED PROJECT	1
II. THE TECHNICAL ASSISTANCE	2
A. Justification	2
B. Outputs and Activities	3
C. Cost and Financing	4
D. Implementation Arrangements	4
 APPENDIXES	
1. Cost Estimates and Financing Plan	6
2. List of Linked Documents	7

I. THE PROPOSED PROJECT

1. **Rationale.** Since 1991, the Asian Development Bank (ADB) has been a major partner in the improvement of Mongolia's transport network and has assisted in developing two major highway corridors linking Mongolia to the Russian Federation and the People's Republic of China. While investment in new road construction has grown, it has not been matched by commensurate increases in road maintenance and rehabilitation. The government did not fund any major maintenance or rehabilitation projects in 2012–2016, and the amount it allocated to the Ministry of Road and Transport Development (MRTD) for routine maintenance was constrained to only 15% of estimated needs.

2. The country urgently needs to improve its road asset management (RAM). A previously implemented RAM system is no longer used because of limited funding. Timely road maintenance is less costly than allowing roads to deteriorate and need major rehabilitation or reconstruction, saving money in tight fiscal situations. This requires capacity development and institutional strengthening, significant investment in a periodic maintenance and rehabilitation program, and stronger enforcement of vehicle weight restrictions to prevent costly road damage from overloading.

3. The Government of Mongolia passed the Road Law Amendment, 2017, which ensures that at least 20% of revenues from the vehicle excise tax are allocated to road maintenance. This would add about MNT7 billion to the State Road Fund each year.¹ Significantly higher fines and penalties, including for truck overloading, will also go into the road fund. Unlike in the past, the fund is only for road maintenance and not for new road construction. The amendment is an important policy change that the project will support.

4. The project will help the government implement its maintenance program, and the attached technical assistance (TA) will provide government agencies with extensive training on RAM and road safety improvement. The project will provide institutional strengthening to (i) ensure maintenance financing and prioritization, (ii) increase the efficiency and capacity of road maintenance companies, and (iii) introduce performance-based road maintenance schemes. It will integrate road safety design and new maintenance technologies and will address vehicle overloading.

5. **Impact, outcome, and outputs.** The project is aligned with the following impact: inclusive economic growth promoted by enhanced local, regional, and international connectivity in Mongolia.² The project outcome will be efficiency of road transport within the project area and between countries improved. The project outputs are: (i) RAM capacity improved, (ii) road condition improved, and (iii) road safety improved. The project will improve 311 kilometers (km) of existing national highway sections comprising Ulaanbaatar–Darkhan (193 km) and Darkhan–Altanbulag (118 km).

6. **Cost estimates and financing plan.** The project is estimated to cost \$60.6 million. The government has requested a regular loan of \$60.0 million from ADB's ordinary capital resources

¹ The State Great Hural (Parliament) of Mongolia. <http://www.parliament.mn/n/xroy>. The law also provides for an increase in vehicle excise tax rates by 5% to 15%, depending on engine size and vehicle age.

² This project-related impact statement aligns with the Mongolian national action plan's strategy to develop a road, transportation, and logistical network that sustains economic growth, is consistent with social needs and demands, and provides safe and comfortable services (Government of Mongolia. 2016. *Action Program of the Government of Mongolia for 2016–2020*. Ulaanbaatar).

to help finance the project. The Government of Mongolia is the borrower of the loan and will finance \$0.6 million for project implementation.

II. THE TECHNICAL ASSISTANCE

A. Justification

7. The core development problem in Mongolia's road transport subsector is unsafe and inefficient road transport resulting from an incomplete legal and regulatory framework, lack of sustainability caused by inadequate funding and overloading, and inadequate private sector participation. The government enacted the Mongolian Road Law Amendment, 2017 to develop and manage road assets and provide better road service delivery to national and international road users. Under the amended law, the MRTD is expected to manage the national road network by (i) developing policies, strategies, plans, and technical documents; (ii) introducing new technologies and approaches in road development and asset management; (iii) protecting roads from damage; and (iv) developing human resources. Most importantly, this law legalized the State Road Fund to finance road maintenance works and established a road board to monitor revenue collection and expenditure allocation. Preparing the required law implementation procedures is now a priority for the MRTD.

8. Substantial investment in developing the national road network may diminish in value as roads deteriorate because of traffic, flooding, and overloading unless adequate RAM is in place and vehicle overloading is better controlled. Through TA, ADB made the first intervention in 2010 when it introduced a RAM system—an objective maintenance planning and prioritization tool—and prepared a 3-year rolling maintenance plan and budget.³ Unfortunately, the planning tool has not been mainstreamed, but the MRTD recognizes the importance of objectively planning maintenance works and started collecting the road inventory data through a private consulting firm. On 15 March 2018, the private consulting firm completed and submitted the final report on the inventory data of all international and national roads totaling 15,000 km. The Road Transport Development Center (RTDC) collects traffic data on such roads annually. The MRTD urgently needs to collect road condition data and revive the maintenance planning tool to be able to mainstream effective RAM practices.

9. The implementation of road maintenance also needs improvement to maximize value for money. Currently, 20 state-owned maintenance companies and eight private companies maintain the national highway network. As the bulk of road maintenance work is being delivered using a force account, quality has become an issue because of the inadequate allocation of funds, insufficient maintenance equipment, and the lack of internal quality control and regular supervision by the MRTD and the RTDC. The ADB-financed Second Roads Development Project pilot tested the outsourcing of routine maintenance works in the early 2000s, which led to some acceptance of engaging private operators in road maintenance.⁴ However, the objective to start outsourcing maintenance works was not fully achieved because of regulatory and resource constraints.

³ ADB. 2009. *Technical Assistance to Mongolia for Road Database Development Using Geographic Information System*. Manila.

⁴ ADB. 1999. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to Mongolia for the Second Roads Development Project*. Manila. The Second Roads Development Project pilot tested the outsourcing of routine maintenance works at two locations on paved and unpaved roads through implementation support for the private contractors by providing light maintenance equipment and technical support on recording and reporting the completed works.

10. While the MRTD has been trying to address road maintenance, overloaded trucks are damaging Mongolia's roads, leading to the need for premature repair works. The MRTD has established five weighbridges across the country, but it needs further assistance in developing a strategic framework to control overloading by reassessing the operation and process used to control vehicle overloading; identifying the origins and destinations of heavy goods; and finding alternative technologies, solutions, and approaches to control axle loads to reduce road damage from overloaded trucks.

11. The TA will assist the MRTD in addressing the incomplete regulatory framework, the lack of sustainability of the road asset, and inadequate private sector participation by (i) recommending suitable frameworks for RAM systems that can be implemented; (ii) reviewing and enhancing the law implementation procedures; and (iii) providing start-up support in adopting an improved RAM system and introducing a road board to manage the road assets effectively. The TA will supplement the planned assistance under the Regional Road Development and Maintenance Project, which will provide soft and hard measures on road maintenance, rehabilitation, and safety. Since multidisciplinary knowledge and experience is required to complete TA tasks, the government wants ADB to select and supervise consultants directly. Through the exercise, ADB will continue to work closely with the government on policy dialogue and institutional enhancement.

12. The TA is included in ADB's country operations business plan, 2018–2020 for Mongolia.⁵ It is in line with ADB's country partnership strategy, 2017–2020 for Mongolia, which includes support for the improvement and maintenance of regional road corridors.⁶

B. Outputs and Activities

13. The TA will (i) review the law implementation procedures for identifying gaps and improvements; (ii) study the national road fund revenue generation methods and the level of road fees or charges; and (iii) assess the organizational capacity of the MRTD's road sector departments, the RTDC, the Mongolian Road Association (MRA), and road maintenance companies. Based on the results of the review, study, and assessments as well as findings from discussions and consultations with sector stakeholders, the TA aims to deliver three outputs.

14. **Output 1: Enhanced road asset management introduced.** The TA will (i) assess the applicability of the existing tools and provide the most suitable RAM system for planning and prioritizing maintenance works in Mongolia as well as the requirements for road condition data collection; (ii) review the drafts and provide recommendations for required procedures, regulations, and guidelines for implementing the Law on Road, focusing on the State Road Fund and its management; (iii) recommend a results-oriented business process and institutional setup for the organizational structure and standard operating procedure of the MRTD and the RTDC, in relation to RAM, to enable the effective implementation of the amended Law on Roads and its associated law implementation procedures; (iv) evaluate 5–10-year road maintenance financing needs using the enhanced RAM system and recommend an efficient mechanism to ensure sufficient revenues and budget allocation; and (v) provide start-up support in preparing a 3-year road maintenance rolling program.

⁵ ADB. 2018. *Country Operations Business Plan: Mongolia, 2018–2020*. Manila.

⁶ ADB. 2017. *Country Partnership Strategy: Mongolia, 2017–2020—Sustaining Inclusive Growth in a Period of Economic Difficulty*. Manila.

15. **Output 2: Strategy prepared to enhance efficiency of maintenance implementation arrangements.** The TA will (i) develop a strategy for engaging the private sector more effectively in road maintenance, including systematic outsourcing of road maintenance works; (ii) prepare a road map for implementing the strategy, with clear indicators and targets to monitor the change and performance of road maintenance operators; (iii) recommend ways to strengthen the road maintenance companies' human and technical capacity and business processes for preparing future divesting the road maintenance companies; and (iv) strengthen technical documents such as standard bidding documents for various road maintenance works and the manual for maintenance supervision.

16. **Output 3: Axle load control operations improved.** The TA will (i) develop a strategy to combat vehicle overloading that will direct the MRTD to introduce stepwise approaches that can be implemented and cost-effective technologies to reduce vehicle overloading; (ii) prepare a road map for implementing the strategy, with clear indicators and targets to monitor the change and performance; (iii) recommend ways to strengthen the MRTD and the RTDC business processes for implementing the strategy and road map effectively; (iv) recommend strategic locations to control axle loads; and (v) prepare technical guidance documents to control overloaded vehicles and to calibrate and commission the weigh scales and other equipment necessary for measuring axle loads.

17. **Activities.** To deliver these outputs, the MRTD will assign one key focal person to work closely with consultants. The Ministry of Finance (MOF) will assign another focal person representing the General Department of Budget to assist the TA consultants in delivering output 1 in regard to operationalizing the road fund.

18. Since the TA will address broader road sector development and financing issues, it will follow a participatory approach. The consultants will engage stakeholders in preparing the institutional, regulatory, and strategic frameworks by (i) organizing brainstorming sessions and consultations with target groups to reach a consensus on the newly drafted law implementation procedures, road maintenance financing and management, strengthened business process, and organizational changes; and (ii) conducting a workshop and seminars for targeted groups to obtain feedback on the technical documents.

C. Cost and Financing

19. The TA is estimated to cost \$730,000, of which \$700,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF 6). The key expenditure items are listed in Appendix 1.

20. The government will provide counterpart support in the form of office accommodation, support facilities, counterpart staff, access to information and reports, logistical support, and other in-kind contributions.

D. Implementation Arrangements

21. ADB will administer the TA. The Transport and Communications Division of ADB's East Asia Department will be responsible for TA administration and the engagement of consultants. The MRTD will be the executing agency of the TA and will coordinate closely with the MOF, the RTDC, and the MRA on TA implementation. The TA is expected to be implemented from June 2019 to January 2021.

22. The implementation arrangements are summarized in the table.

Implementation Arrangements

Aspects	Arrangements		
Indicative implementation period	January 2019–January 2021		
Executing agency	MRTD		
Consultants	To be selected and engaged by ADB		
	Firm: quality- and cost-based selection, simplified technical proposal, input-based contract	International consultancy service for policy advice and capacity building on road maintenance and asset management	\$580,000
	Individual: individual selection	National expertise (20 person-months)	\$60,000
Advance contracting and retroactive financing	Recruitment of the consulting firm and individual consultants will be undertaken as advance contracting and may be retroactively financed for initial expenses.		
Disbursement	The TA resources will be disbursed following ADB's <i>Technical Assistance Disbursement Handbook</i> (2010, as amended from time to time).		
Asset turnover or disposal arrangement upon TA completion	The consultants will turn over any fixed assets to be purchased during the TA, such as office equipment, to the MRTD upon TA completion. ADB will encourage the consultants to rent or lease fixed assets where possible.		

ADB = Asian Development Bank, MRTD = Ministry of Road and Transport Development, TA = technical assistance.
Source: Asian Development Bank.

23. **Consulting services.** ADB will engage the consultants following the ADB Procurement Policy (2017, as amended from time to time) and its associated project administration instructions and/or staff instructions.⁷ ADB will select a consulting firm based on the quality- and cost-based selection method using a 90:10 quality–cost ratio with simplified technical proposal. In addition to a firm, ADB will recruit a national coordinator separately using the individual selection method. A national coordinator (20 person-months) will (i) liaise with the consulting firm and road sector stakeholders, including the MRTD, the MOF, the RTDC, the MRA, and other government and nongovernment agencies; (ii) oversee overall day-to-day TA implementation and immediately report any emerging TA implementation issues to ADB and the MRTD; and (iii) encourage the full participation of stakeholders in a series of consultation meetings.

⁷ Terms of Reference for Consultants (accessible from the list of linked documents in Appendix 2).

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	274.9
ii. National consultants	225.1
b. Out-of-pocket expenditures	
i. International and local travel	87.2
ii. Office space rental and related facilities	5.0
iii. Surveys	5.0
iv. Training, seminars, and conferences ^b	20.0
v. Reports and communications ^b	8.0
vi. Printed external publications ^b	5.0
vii. Miscellaneous administration and support costs	5.0
2. Contingencies	64.8
Total	700.0

Note: The technical assistance (TA) is estimated to cost \$730,000, of which contributions from the Asian Development Bank are presented in the table above. The government will provide counterpart support in the form of office accommodation, support facilities, counterpart staff, access to information and reports, and other logistical support through in-kind contributions. The value of government contribution is estimated to account for 4.1% of the total TA cost.

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF 6).

^b Includes interpretation and translation costs.

Source: Asian Development Bank estimates.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/LinkedDocs/?id=48186-005-TARreport>

1. Terms of Reference for Consultants