



Report and Recommendation of the President to the Board of Directors

Project Number: 48186-007
April 2019

Proposed Loan and Administration of Grant for Additional Financing Mongolia: Regional Road Development and Maintenance Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 20 March 2019)

Currency unit	–	togrog (MNT)
MNT1.00	=	\$0.0003801
\$1.00	=	MNT2,631.00

ABBREVIATIONS

ADB	–	Asian Development Bank
EIRR	–	economic internal rate of return
EMP	–	environmental management plan
GAP	–	gender action plan
HLTF	–	High-Level Technology Fund
IEE	–	initial environmental examination
km	–	kilometer
MRTD	–	Ministry of Road and Transport Development
PAM	–	project administration manual
PBC	–	performance-based contract
PIU	–	project implementation unit
ROW	–	right-of-way
SDAP	–	social development action plan
SPRSS	–	summary poverty reduction and social strategy
TA	–	technical assistance

NOTE

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

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PROJECT AT A GLANCE

1. Basic Data		Project Number: 48186-007	
Project Name	Regional Road Development and Maintenance Project —Additional Financing	Department /Division	EARD/EASI
Country Borrower	Mongolia Ministry of Finance	Executing Agency	Ministry of Road and Transport Development of Mongolia
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Transport	Road transport (non-urban)		58.50
		Total	58.50
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Climate Change impact on the Project	Medium
Environmentally sustainable growth (ESG)	Disaster risk management Global and regional transboundary environmental concerns	ADB Financing Adaptation (\$ million)	16.00
Regional integration (RCI)	Pillar 1: Cross-border infrastructure		
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Organizational development	Effective gender mainstreaming (EGM)	✓
Knowledge solutions (KNS)	Knowledge sharing activities		
Partnerships (PAR)	Implementation Private Sector		
Private sector development (PSD)	Conducive policy and institutional environment		
5. Poverty and SDG Targeting		Location Impact	
Geographic Targeting	No	Nation-wide	High
Household Targeting	No		
SDG Targeting	Yes		
SDG Goals	SDG3, SDG9, SDG10, SDG13		
6. Risk Categorization:	Low		
7. Safeguard Categorization	Environment: B Involuntary Resettlement: C Indigenous Peoples: C		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		58.50	
Sovereign Project (Regular Loan): Ordinary capital resources		58.50	
Cofinancing		1.50	
High Level Technology Fund - Project grant (Full ADB Administration)		1.50	
Counterpart		0.60	
Government		0.60	
Total		60.60	
Currency of ADB Financing: USD			

MONGOLIA
REGIONAL ROAD DEVELOPMENT AND MAINTENANCE PROJECT
(additional financing)



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	Additional Financing Roads	4
	Ongoing Project Roads	
	National Capital	
	Provincial Capital	
	City/Town	
	Main Road	
	Provincial Road	
	River	
	Provincial Boundary	
	International Boundary	

Boundaries are not necessarily authoritative.

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to Mongolia for the additional financing of the Regional Road Development and Maintenance Project. The report also describes the proposed administration of a grant to be provided by the High-Level Technology Fund (HLTF)¹ for the additional financing of the Regional Road Development and Maintenance Project, and if the Board approves the proposed loan, I, acting under the authority delegated to me by the Board, approve the administration of the grant.

2. The additional financing and the administration of the HLTF grant will scale up and extend the socioeconomic benefits of the current project by further enhancing the road condition and safety of the major national highway sections connecting the capital city of Ulaanbaatar with the northern and western *aimags*.²

II. THE PROJECT

A. Rationale

3. The current project aims to rehabilitate and enhance the safety of important regional road corridor sections from Ulaanbaatar to Altanbulag and help the government improve the road asset management and road safety capacity.³ The current project has been performing according to schedule since it became effective on 21 August 2018. The proposed project has been confirmed to meet the eligibility criteria for additional financing, as the current project meets all the criteria:

- (i) project performance is rated *on track*. (No contract awards or disbursements have been made yet, which is in line with the current projection, and preparation activities for consultant selection and procurement are on track.);⁴
- (ii) each safeguard covenant item is being complied with;⁵
- (iii) delivery of expected outputs is rated *successful*, as initial actions (such as the preparation of detailed design) are progressing as planned; and
- (iv) management of risks is rated *successful*, as all the risks in the current report and recommendation of the President have been managed successfully.⁶

4. The additional financing is proposed to (i) scale up the road rehabilitation and safety enhancement works to a deteriorated trunk road section from the capital city to the western

¹ Financing partner: the Government of Japan.

² Provincial administrative unit in Mongolia.

³ The current project's outputs comprise (i) road asset management capacity improved, (ii) road condition improved (for the Ulaanbaatar–Darkhan and Darkhan–Altanbulag sections), and (iii) road safety improved. The report and recommendation of the President for the current project is accessible from the list of linked documents in Appendix 2.

⁴ The current project expected to recruit a design and construction supervision consultant in the third quarter of 2019 and award the first civil works contract in 2020 because the current procurement law does not allow advance contracting (an amendment to this law is under consideration). However, the government secured its own financing sources in 2018 to conduct the detailed design of the Ulaanbaatar–Darkhan section without waiting to use the Asian Development Bank (ADB) loan and expedited the initial project actions. The loan-funded consulting service was advertised on 29 October 2018, and a bidding document for the Ulaanbaatar–Darkhan section was issued in March 2019.

⁵ The Ministry of Road and Transport Development (MRTD) has committed that the environmental management plan (EMP) will be included in the bidding documents, required safeguard staff members will continued to be engaged in the project implementation unit (PIU), and a project-specific grievance redress mechanism will be established.

⁶ One financial management action item included in the project administration manual (PAM) of the current project was not completed by March 2019, but ADB and the government will complete the item soon after consultants are mobilized in the second quarter of 2019.

provinces (Khuiten Valley–Arvaikheer); (ii) further enhance the safety and flood resilience of the current project section (Ulaanbaatar–Darkhan), some of which was severely damaged by floods in 2018; and (iii) conduct due diligence on the proposed new road improvement to connect to the planned Chinggis Khaan Tourism Complex. The Khuiten Valley–Arvaikheer section is a bottleneck to the road traffic from the capital city to the western *aimags* because of the deteriorated and unsafe road conditions, and its improvement will enhance the economic development and the regional link. The government has initiated the National Program on Tourism Development, 2016–2030,⁷ which aims to establish Mongolia as a global destination for nomadic culture. Chinggis Khaan tourism complex is planned in the documented birthplace of Chinggis Khaan.⁸ The additional scope is strongly linked to the current project’s scope and can be efficiently implemented under similar implementation arrangements. The overall project impact continues to be aligned with the government’s priorities under the Action Program of the Government of Mongolia for 2016–2020 and the country partnership strategy of the Asian Development Bank (ADB).⁹

B. Impact and Outcome

5. The project is aligned with the following impact: inclusive economic growth promoted by enhanced local, regional, and international connectivity in Mongolia.¹⁰ The project will have the following outcome: efficiency and safety of road transport within the project area and between countries improved.¹¹

6. The overall aggregate impact and outcome of the project remains unchanged from the current project. The outcome indicators changed as a result of the additional financing to reflect the newly added section of Khuiten Valley–Arvaikheer.

C. Outputs

7. The proposed additional financing will further enhance the road condition and safety of the Ulaanbaatar–Darkhan (204 kilometers [km]) section and improve the Khuiten Valley–Arvaikheer (58 km) section with climate change adaptation measures. The outputs of the overall project will be (i) road asset management capacity improved, (ii) road condition improved, (iii) road safety improved, and (iv) due diligence reports prepared, as described in paras. 8–11. The outputs of the additional financing will contribute to the overall project outputs through (i) road condition and flood resilience improved for the Ulaanbaatar–Darkhan (204 km)¹² and Khuiten Valley–Arvaikheer (58 km) sections (part of output 2); (ii) road safety improved for the above sections (part of output 3); and (iii) due diligence reports for project preparation prepared for the Chinggis–Norovlin–Dadal section (257 km), the so-called “Secret History” road (output 4). The Ulaanbaatar–Darkhan section will be funded by both the current and additional financing projects as part of

⁷ Government of Mongolia. 2015. *National Program on Tourism Development, 2016–2030*. Ulaanbaatar.

⁸ ADB will also support the development of the Chinggis Khaan tourism complex through the proposed ADB. Sustainable Tourism Development Project. <https://www.adb.org/projects/50013-002/main>.

⁹ Government of Mongolia. 2016. *Action Program of the Government of Mongolia for 2016–2020*. Ulaanbaatar; and ADB. 2017. *Country Partnership Strategy: Mongolia, 2017–2020—Sustaining Inclusive Growth in a Period of Economic Difficulty*. Manila.

¹⁰ This project-related impact statement aligns with the Mongolia national action program’s strategy to develop a road, transport, and logistical network that sustains economic growth, is consistent with social needs and demands, and provides safe and comfortable services (footnote 9).

¹¹ The design and monitoring framework is in Appendix 1.

¹² The Ulaanbaatar–Darkhan section was also included in the original project, and the additional financing project will further enhance flood resilience and road safety and include rehabilitation of bridges. The coverage of the section was extended on both sides, and the total length increased from 193 km to 204 km.

outputs 2 and 3, and the additional financing project will enhance the current project by including (i) an expansion of the embankment formation to 11 meters for the entire alignment, (ii) rehabilitation of all the bridges, (iii) an increase in the stabilized subbase and other climate change adaptation measures, and (iv) enhancements of the road safety facility such as wire-rope median barriers. More descriptions of the outputs of the overall project are given below.

8. **Output 1: Road asset management capacity improved.** This output will strengthen sustainable road maintenance practices and build capacity for the implementation of maintenance projects prepared and procured during the project. Capacity-building activities will be conducted through a participatory approach involving various stakeholders such as the Mongolian Road Association and road maintenance companies. These activities include (i) reestablishing and providing training on the road asset management system to improve maintenance planning, implementation, and prioritization;¹³ (ii) designing improvements in road funding to ensure the sustainability of maintenance activities, including measures to prevent vehicle overloading; and (iii) supporting pilot performance-based maintenance.¹⁴ This output will be delivered partly through attached technical assistance (TA) and partly with output 2.

9. **Output 2: Road condition improved.** This output will preserve and improve important regional road sections that link the People's Republic of China and the Russian Federation through Mongolia's capital, and comprises part of the Central Asia Regional Economic Cooperation Corridor 4b. The project will improve 380 km of existing national highway sections comprising Ulaanbaatar–Darkhan (204 km), Darkhan–Altanbulag (118 km), and Khuiten Valley–Arvaikheer (58 km). Improvement works will include (i) pavement treatment and (ii) widening of carriageways and shoulders within the existing right-of-way (ROW). The road design will incorporate climate change adaptation measures such as adding cross-drainage culverts at flood prone areas, raising the height of the embankment in low sections, and installing thick asphalt concrete layers. These adaptation measures are estimated to cost \$16 million.

10. **Output 3: Road safety improved.** This output will provide capacity development in road safety policies and implement safety features in the road condition improvement works undertaken with output 2. Safety features will include improvements in road markings, barriers, and guide posts. The HLTF will finance a demonstrative introduction of wire-rope median barriers for the mitigation of head-on collisions in traffic safety blackspots of the country's most heavily used national highway section of Ulaanbaatar–Darkhan. Climbing lanes will also be constructed within the ROW at the blackspots, where overtaking of slow-moving vehicles often causes fatal head-on collisions. Independent road safety audits will be conducted on detailed designs, as well as a post-construction stage.

11. **Output 4: Due diligence reports prepared.** This output will prepare due diligence reports as part of project preparation for the Chinggis–Norovlin–Dadal section (257 km), the so-called “Secret History” road. The section will connect Chinggis City and the planned Chinggis Khaan tourism complex.

¹³ A team of experts under the TA attached to the current project (TA 9544-MON) will assess the use of equipment and planning tools provided in 2010 under ADB. 2009. *Technical Assistance to Mongolia for Road Database Development Using Geographic Information System*. Manila.

¹⁴ The pilot performance-based maintenance will be implemented as part of the works contract under the loan and follows requirements in the EMP under the contract.

D. Investment and Financing Plans

12. The project is estimated to cost \$121.2 million (Table 1). Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM).¹⁵

Table 1: Project Investment Plan
(\$ million)

Item	Current Amount ^a	Additional Financing ^b	Total
A. Base Cost^c			
1. Road asset management capacity improved	6.3	0.8	7.1
2. Road condition improved	21.4	29.2	50.6
3. Road safety improved	22.8	19.2	42.0
4. Due diligence reports prepared	0.0	0.5	0.5
Subtotal (A)	50.5	49.7	100.2
B. Contingencies^d	6.3	4.2	10.5
C. Financial Charges During Implementation^e	3.8	6.7	10.5
Total (A+B+C)	60.6	60.6	121.2

ADB = Asian Development Bank, OCR = ordinary capital resources, US = United States.

^a Refers to the original amount. Includes taxes and duties of \$3.77 million financed from ADB loan resources.

^b Includes taxes and duties of \$0.2 million to be financed from ADB loan resources. Such amount does not represent an excessive share of the project cost. The government will exempt value-added taxes and duties on goods, materials, and workplace payment for foreign workers, which are estimated at, but not limited to, \$0.1 million.

^c In mid-2018 prices as of 5 December 2018.

^d Physical contingencies computed at 2.0% for civil works. Price contingencies computed at average of 49% on foreign exchange costs and 51% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^e Includes interest and commitment charges. Interest during construction for the OCR loan has been computed at the 5-year US dollar fixed-rate swap plus an effective contractual spread of 0.50% and maturity premium of 0.20%. Commitment charges for the ordinary capital resources loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank estimates.

13. The government has requested (i) a regular loan of \$58.5 million from ADB's ordinary capital resources and (ii) a grant of \$1.5 million from the ADB HLTF to help finance the additional financing project. The loan will have a 25-year term, including a grace period of 8 years; an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; a commitment charge of 0.15% per year (the interest and other charges during construction to be capitalized in the loan); and such other terms and conditions set forth in the draft loan agreement. Based on the straight-line method, the average maturity is 16.75 years, and the maturity premium payable to ADB is 0.20% per year. The HLTF (footnote 1) will provide grant cofinancing equivalent to \$1.5 million, to be administered by ADB. The preferred financing option is parallel, and the HLTF will be used for the costs required to build wire-rope median barriers.

14. The borrower, the Government of Mongolia, will help finance the project and will assume the foreign exchange and interest variation risks of the ADB loan and grant. The ADB loan and the HLTF will finance 99% of the additional financing project cost, including the expenditures in relation to works and consulting services. The government will finance \$0.6 million for the implementation of the additional financing project. The financing plan is in Table 2.

¹⁵ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Table 2: Financing Plan

Source	Current ^a		Additional Financing		Total	
	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)
Asian Development Bank						
Ordinary capital resources (regular loan)	60.0	99.0	58.5	96.5	118.5	97.7
Cofinancing						
High-Level Technology Fund ^b	0.0	0.0	1.5	2.5	1.5	1.3
Government of Mongolia	0.6	1.0	0.6	1.0	1.2	1.0
Total	60.6	100.0	60.6	100.0	121.2	100.0

^a Refers to the current project's amount.

^b Financing partner: the Government of Japan. Administered by the Asian Development Bank. The grant amount does not include administration fees or other charges.

Source: Asian Development Bank estimates.

E. Implementation Arrangements

15. The implementation arrangements, such as the executing and implementing agencies, will remain unchanged from the current project. The executing agency, the Ministry of Road and Transport Development (MRTD), formed a steering committee to be chaired by the state secretary of the MRTD, comprising representatives from the MRTD, the Ministry of Finance, the Ministry of Environment and Tourism, and relevant state agencies.¹⁶ A project implementation unit (PIU) was established by the MRTD and reports to the executing agency.

16. The project will be implemented over 7 years from May 2019 to March 2026. A construction supervision consulting firm will be selected under the current project to supervise the civil works of the overall project scope and conduct project preparatory due diligence for the Chinggis–Norovlin–Dadal section. Draft terms of reference and cost estimates were agreed in the loan fact-finding mission in November–December 2018 and are included in the PAM. The MRTD recruited PIU staff. The implementation arrangements are summarized in Table 3 and described in detail in the PAM (footnote 15).

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period	May 2019–March 2026		
Estimated completion date	31 March 2026		
Estimated loan closing date	30 September 2026		
Management			
(i) Oversight body	Project steering committee State secretary, MRTD (chair) Representatives from the MRTD, the Ministry of Finance, the Ministry of Environment and Tourism, and relevant state agencies (members)		
(ii) Executing agency	MRTD		
(iii) Key implementing agencies	Road Policy Implementation and Coordination Department of the MRTD		
(iv) Implementation unit	Project implementation unit appointed by the MRTD, 8 staff		
Procurement (ADB-financed contract packages) ^a	International competitive bidding	7 contracts	\$100.3 million
	National competitive bidding	1 contract	\$3.9 million
Consulting services ^a	Quality- and cost-based selection (90:10)	824 person-months	\$4.4 million
	Single-source selection	6 person-months	\$0.04 million

¹⁶ If the ongoing government restructuring affects ministerial responsibilities for roads and other aspects of the project implementation arrangements, they will be updated accordingly.

Aspects	Arrangements
Retroactive financing and/or advance contracting	Advance contracting is proposed for consulting services and civil works.
Disbursement	The loan and ADB-administered grant proceeds will be disbursed following ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.

ADB = Asian Development Bank, MRTD = Ministry of Road and Transport Development.

^a For the overall project, including the parts to be financed under the additional financing project.

Source: Asian Development Bank.

III. DUE DILIGENCE

A. Technical

17. The assessment determined the rehabilitation and maintenance needs, including constructing climbing lanes and widening carriageways and shoulders to Mongolian Class I-G standard to increase road capacity and safety.¹⁷ The project components are expected to improve the conditions and safety of the road sections from Ulaanbaatar to Altanbulag (the section with some of the highest traffic, part of the Central Asia Regional Economic Cooperation Corridor 4b) and from Khuiten Valley to Arvaikheer (the section connecting the capital city to the western *aimags*).

18. The proposed wire-rope median barrier technology was tested in research laboratories under the Ministry of Land, Infrastructure, Transport and Tourism of Japan; and the ministry published a press release on its effectiveness and a plan for nationwide deployment in Japan.¹⁸ Application of this technology will be the first in the country, but it is expected to be effective because head-on collisions in the Ulaanbaatar–Darkhan section are posing serious traffic safety risks, and the technology has been tested and proven to be effective in cold climate conditions.

19. The overall project will develop a strategy for engaging the private sector more effectively in road maintenance, and recommend ways to strengthen the road maintenance companies' capacity and business processes. The routine and periodic maintenance is operated by the 20 state-owned and eight private maintenance companies with limited funding. The full introduction of standard performance-based contracts (PBCs) is not appropriate in the current situation because the sector lacks the experience and capacity to fulfill longer-term service commitments. However, a form of PBCs will be pilot tested in the civil works contracts by implementing a 5-year PBC concurrently with the improvement works during the first 2 years. While the length of network in each PBC may be well below accepted good practice, it is a vital first step to modernizing road maintenance practices in Mongolia.

B. Economic and Financial

20. The economic viability of the road improvement packages was assessed in accordance with ADB's guidelines.¹⁹ The economic viability of the project was assessed in terms of the estimated economic internal rate of return (EIRR) for Ulaanbaatar–Darkhan–Altanbulag, Khuiten Valley–Arvaikheer, and for both sections combined. The result incorporates an update of the assessment carried out under the current project and the assessment of the additional packages

¹⁷ The Mongolian Class I-G (main road) standard requires a two-lane carriageway with each lane 3.5 meters wide and an 8.5-meter pavement.

¹⁸ Government of Japan, Ministry of Land, Infrastructure, Transport and Tourism. 2018. Press release. <http://www.mlit.go.jp/common/001238748.pdf>. 15 June.

¹⁹ ADB. 2017. *Guidelines for the Economic Analysis of Projects*. Manila.

of the additional financing project. Economic benefits of the project include savings in vehicle operating costs, time savings, and road safety benefits, although the overall project will also generate unquantifiable benefits related to improved accessibility. The updated EIRR was estimated to be 24.1% for the Ulaanbaatar–Darkhan–Altanbulag section, 12.8% for the Khuiten Valley–Arvaikheer section, and 22.6% for both sections combined. Thus, it may be concluded that the overall project, as well as both sections (Ulaanbaatar–Darkhan–Altanbulag and Khuiten Valley–Arvaikheer) are economically viable with solid EIRRs. A sensitivity analysis of potential cost overruns and benefit reductions indicates that the overall project remains viable under all assumptions and is economically robust.

21. The financial analysis of the current project conducted in March 2018 remains valid. The review team requested the updated government budget²⁰ and actual expenditure,²¹ but they were not available at the time of project appraisal in December 2018. Once such information becomes available during the project implementation, it will be used to monitor the financial sustainability of the project facility's operation and maintenance. Insufficient budget allocation for maintenance of the country's growing paved road network is a high risk for the sustainability of the road facilities. The 2012–2017 maintenance budget increased 7.5% per year, while the paved road length more than doubled from 2,964 km to 6,621 km in the same period. The MRTD will take mitigation measures as described in Table 4.

C. Governance

22. The MRTD recruited staff and established a PIU. The updated financial management analysis assessed the pre-mitigation risk of the project to be moderate. The remaining key constraints are that the PIU's financial management staff perform below expectations or have limited knowledge of ADB requirements and the accounting system installed for the project. Measures to mitigate such constraints were conveyed to the MRTD and are in the financial management assessment²² and PAM. The additional financing project will follow the financial management action plan of the current project as detailed in the PAM. The MRTD confirmed that this action plan would be completed in 2019.

23. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the MRTD. The specific policy requirements and supplementary measures are described in the PAM (footnote 15).

D. Poverty and Social

24. In preparation for the additional financing, the analysis and activities in the summary poverty reduction and social strategy (SPRSS), gender action plan (GAP), and social development action plan (SDAP) of the current project have been updated and extended to cover the additional *aimag* of Uvurkhangaï in the Khuiten Valley–Arvaikheer section. These updates and additions, and their corresponding staffing and budget implications, have been agreed with the MRTD. The overall project has been designed to meet ADB's *effective gender mainstreaming* categorization and will deliver tangible benefits to women, including (i) training in livelihood development and income generation for women along the road corridor, with support from nongovernment organizations; (ii) employment during construction; and (iii) training for female MRTD staff.

²⁰ Forecasted budget of the MRTD starting 2019.

²¹ The actual MRTD expenditure for 2018 and the detailed actual recurrent and capital expenditure for the same period.

²² Financial Management Assessment (accessible from the list of documents in Appendix 2).

25. The SPRSS, GAP, and SDAP for the current project cover Darkhan-Uul and Selenge *aimags*. The additional GAP and SDAP actions for Uvurkhangai *aimag* are coherent with those of the original GAP and SDAP to facilitate implementation, monitoring, and reporting. The updating of the SPRSS, GAP, and SDAP have been informed by an additional socioeconomic survey and consultations conducted in Uvurkhangai *aimag* in October 2018. An additional 120 people have been surveyed and consulted to understand transmission channels and likely positive and negative impacts resulting from the additional financing project.²³

E. Safeguards

26. In compliance with ADB's Safeguard Policy Statement (2009), the project's safeguard categories are detailed below.

27. **Environment (category B).** The initial environmental examination (IEE)²⁴ of the current project was updated to include the project components under the additional financing and associated environmental impacts. The additional financing does not involve any new road construction, and limits project activities to road maintenance works of the existing regional road corridor. The project road corridor and its vicinities do not involve any environmentally sensitive areas or physical cultural heritage. A small number of nomadic herders and residences living along the project road corridor were identified as the main sensitive receptors. Additional meaningful consultation was carried out. During the construction phase, anticipated environmental adverse impacts are construction noise and dust associated with road maintenance works, water quality impacts of maintenance works near the rivers crossed by the project roads, air quality from asphalt processing, domestic waste and wastewater at workers' camps, and associated occupational and community health and safety risks. Limited adverse impacts are anticipated during operation as the road is already operational and no induced traffic is predicted. With improved road conditions, usual impacts associated with poor road conditions such as sudden stops and rapid speed reduction to avoid potholes and uneven road surface, associated noise, emissions, and accident risks, will be reduced. As the environmental impacts are site-specific and can be sufficiently mitigated through the updated environmental management plan (EMP), the category for the environment remains B.

28. The updated IEE contains a comprehensive EMP, environmental monitoring plan, and project-specific grievance redress mechanism that can adequately address adverse impacts of the current project and the additional financing project. The updated IEE was disclosed on the ADB website on 18 February 2019. The MRTD has committed to set up appropriate institutional arrangements, allocate sufficient environmental budget, and implement the EMP and grievance redress mechanism for both the current project and the additional financing project. Once the domestic detailed environmental impact assessments are prepared and approved, the current IEE will be updated to reflect the domestic environmental impact assessments' approval conditions to avoid any discrepancy.

29. The climate risks for the current project and the additional financing project are classified *medium*. A climate risk and vulnerability assessment report has been prepared and included in the updated IEE. Possible climate-related risks in the project area are seasonal floods and snow accumulation on the project roads. Climate adaptation measures, such as adding culverts at

²³ Agreed updated Summary Poverty Reduction and Social Strategy, Gender Action Plan, and Social Development Action Plan (accessible from the list of linked documents in Appendix 2).

²⁴ Initial Environmental Examination (accessible from the list of linked documents in Appendix 2).

flood-prone areas, raising the height of the embankment in some low spots, and installing enhanced asphalt concrete layers, are proposed with estimated costs of \$16 million.

30. **Involuntary resettlement (category C).** Due diligence confirmed that the outputs under the additional financing will not require any land acquisition or resettlement as the works are limited to rehabilitation and maintenance within the existing ROW.

31. **Indigenous peoples (category C).** The social analysis and consultations confirmed that separate ethnic minorities are not present in the project area of the additional financing project. All people will benefit from safer, faster, and more comfortable transport as a result of the rehabilitated road.

F. Risks and Mitigating Measures

32. The overall benefits and impacts are expected to outweigh the costs and risks, and the overall risk after mitigation measures is low for the additional financing project. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.²⁵

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigation Measures
The government faces political and financial pressures in the adoption of sustainable road maintenance and maintenance funding concepts.	The government provided assurances to increase the O&M budget provision from the current insufficient allocation and will take actions as indicated in the project administration manual. ^a ADB will continue policy dialogue and long-term engagement of all decision makers in policy reform, including discussions on the International Monetary Fund's Extended Fund Facility program.
The government may start a four-lane expansion project for the Ulaanbaatar–Darkhan section without proper due diligence, which may cause reputational risks to the ADB project.	The government agreed on the assurance to ensure proper due diligence and keep ADB informed of the progress.
Newly recruited project implementation unit staff with limited knowledge of ADB procedures and O&M requirements may lead to implementation delay.	The Ministry of Road and Transport Development will appoint suitable staff. ADB and consultants will provide institutional development and capacity-building support for O&M-related training on the road asset management system and will improve maintenance planning, prioritization, and implementation.

ADB = Asian Development Bank, O&M = operation and maintenance.

^a Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Source: Asian Development Bank.

IV. ASSURANCES

33. The government and the MRTD have assured ADB that implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents.

34. The government and the MRTD have agreed with ADB on certain covenants for the project, which are set forth in the loan agreement and grant agreement.

²⁵ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

V. RECOMMENDATION

35. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$58,500,000 to Mongolia for the additional financing of the Regional Road Development and Maintenance Project, from ADB's ordinary capital resources, in regular terms, with interest to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; for a term of 25 years, including a grace period of 8 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan agreement presented to the Board.

Takehiko Nakao
President

25 April 2019

REVISED DESIGN AND MONITORING FRAMEWORK

Impact the Project is Aligned with			
<p>Current project Inclusive economic growth promoted by enhanced local, regional, and international connectivity in Mongolia (Action Program of the Government of Mongolia for 2016–2020)^a</p> <p>Overall project Inclusive economic growth promoted by enhanced local, regional, and international connectivity in Mongolia (Action Program of the Government of Mongolia for 2016–2020)^a</p>			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<p>Outcome</p> <p>Current project Efficiency and safety of road transport within the project area and between countries improved</p> <p>Overall project Efficiency and safety of road transport within the project area and between countries improved</p>	<p>Current project By 2030: a. Average vehicle travel time from Ulaanbaatar to Altanbulag reduced by at least 10% (2016 baseline: 300 minutes) b. Traffic accidents reduced by 15% in three project <i>aimags</i>^b (2017 baseline: 75 deaths and 191 injured)</p> <p>Overall project By 2030: a. Unchanged b. Traffic accidents reduced by 15% in four project <i>aimags</i>^b (2017 baseline: 101 deaths and 244 injured)</p>	<p>a. Project progress and completion reports</p> <p>b. National police statistics</p> <p>a. Project progress and completion reports</p> <p>b. National police statistics</p>	<p>The government faces unexpected political and financial barriers in the adoption of sustainable road maintenance and maintenance funding concepts.</p> <p>The government faces unexpected political and financial barriers in the adoption of sustainable road maintenance and maintenance funding concepts.</p>
<p>Outputs</p> <p>Output 1 Current project 1. RAM capacity improved</p>	<p>Current project By 2025: 1a. RAM system established (2017 baseline: no system in place) 1b. At least 30 staff, including at least 50% women who attended training, report improved skills on RAM (2017 baseline: 0 and not applicable)</p>	<p>1a. Ministry of Road and Transport Development annual road maintenance report</p> <p>1b. PIU's quarterly progress reports</p>	<p>Newly recruited PIU staff with limited knowledge of ADB procedures and operation and maintenance requirements may lead to implementation delay.</p>
<p>Overall project 1. RAM capacity improved</p>	<p>Overall project By 2025: 1a. Unchanged 1b. Unchanged</p>	<p>1a. Ministry of Road and Transport Development annual road maintenance report</p> <p>1b. PIU's quarterly progress reports</p>	<p>Newly recruited PIU staff with limited knowledge of ADB procedures and operation and maintenance requirements may lead to implementation delay.</p>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Output 2 Current project 2. Road condition improved	Current project By 2025: 2a. The 311 km Ulaanbaatar–Altanbulag road section rehabilitated to good condition or international roughness index of 4 or below (2017 baseline: 0 km) 2b. 400 people, of which at least 50% women, participated in training on small businesses and income-generation methods (2017 baseline: not applicable)	2a.–2b. PIU's quarterly progress reports	
Overall project 2. Road condition improved	Overall project By 2026: 2a. The 322 km Ulaanbaatar–Altanbulag and 58 km Khuiten Valley–Arvaikheer road sections rehabilitated to good condition or international roughness index of 4 or below (2017 baseline: 0 km) (changed) 2b. 500 people, of which at least 50% women, trained by local nongovernment organization in small business and income-generation methods applicable to the road corridor market (2017 baseline: not applicable) (changed)	2a.–2b. PIU's quarterly progress reports	
Output 3 Current project 3. Road safety improved	Current project By 2025: 3a. Road safety facility, including road markings, barriers, and guide posts, rehabilitated or installed in 311 km Ulaanbaatar–Altanbulag road section (2017 baseline: 0 km) 3b. 800 residents (at least 30% women) reported on the improved awareness on road safety and related activities as a result of road safety training (2017 baseline: 0 and not applicable) 3c. 160 school teachers (at least 50% women) trained as trainers on road safety and ready to deliver trainings to school students (2017 baseline: 0 and not applicable)	3a.–3c. PIU's quarterly progress reports	
Overall project	Overall project By 2026:		

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
3. Road safety improved	<p>3a. Road safety facility, including road markings, barriers, and guide posts, rehabilitated or installed in 322 km Ulaanbaatar–Altanbulag and 58 km Khuiten Valley–Arvaikheer road sections (2017 baseline: 0 km) (changed)</p> <p>3b. 1,200 residents (at least 50% women) reported improved awareness of road safety and related activities as a result of road safety training (2017 baseline: 0) (changed)</p> <p>3c. 200 school teachers (at least 70% women) trained as trainers on road safety and ready to deliver trainings to school students (2017 baseline: 0 and not applicable) (changed)</p>	3a.–3c. PIU's quarterly progress reports	
Output 4 Current project Not applicable Overall project 4. Due diligence reports for project preparation prepared	Overall project By 2026: 4a. Due diligence reports prepared for 257 km Chinggis–Norovlin–Dadal road improvement (2018 baseline: 0) (added)	4a. PIU's quarterly progress reports	
Key Activities with Milestones 1. RAM capacity improved 1.1 Define and establish RAM system (Q3 2019–Q4 2022) (updated). 1.2 Conduct training on asset management and maintenance (Q4 2019) (unchanged). 1.3 Conduct road condition and traffic surveys (Q2 2019) (unchanged). 1.4 Prepare and design road maintenance program (Q3–Q4 2020) (updated). 1.5 Pilot test a performance-based arrangement for road maintenance (Q2 2021–Q1 2026) (updated). 2. Road condition improved 2.1 Start road improvement works (Q2 2020) (unchanged). 2.2 Complete road improvement works (Q3 2024) (unchanged). 2.3 Implement periodic maintenance works (Q2 2023–Q1 2026) (updated). 3. Road safety improved 3.1 Conduct prior monitoring of safety feature design (Q3 2019) (unchanged). 3.2 Conduct road safety training (Q4 2019) (unchanged). 3.3 Conduct post-construction audit (Q3 2024) (updated). 4. Due diligence reports for project preparation prepared 4.1 Conduct due diligence on the road improvement proposal (Q1–Q2 2020) (added). Project Management Activities Recruit PIU specialists (Q2 2019) (updated). Recruit construction supervision and due diligence consultant (Q3 2019) (unchanged). Award contracts for civil works (Q3 2019–Q2 2021) (unchanged).			
Inputs			

ADB	
Loan	Technical Assistance Grant
\$60,000,000 (current)	\$700,000 (current)
\$58,500,000 (additional)	\$0 (additional)
\$118,500,000 (overall)	\$700,000 (overall)
High-Level Technology Fund	
\$0 (current)	
\$1,500,000 (additional)	
\$1,500,000 (overall)	
Government	
\$600,000 (current)	
\$600,000 (additional)	
\$1,200,000 (overall)	
Assumptions for Partner Financing	
Not applicable	

ADB = Asian Development Bank, km = kilometer, PIU = project implementation unit, Q = quarter, RAM = road asset management.

^a Government of Mongolia. 2016. *Action Program of the Government of Mongolia for 2016–2020*. Ulaanbaatar (Section 2.121). http://www.mfa.gov.mn/wp-content/uploads/2015/06/2016-2020_Gov_AP_Eng_Revised.pdf.

^b Provincial administrative unit in Mongolia.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=48186-007-3>

1. Loan Agreement
2. Grant Agreement
3. Sector Assessment (Summary): Transport
4. Project Administration Manual
5. Summary of Project Performance
6. Contribution to the ADB Results Framework
7. Development Coordination
8. Financial Analysis
9. Economic Analysis
10. Country Economic Indicators
11. Summary Poverty Reduction and Social Strategy
12. Gender Action Plan
13. Initial Environmental Examination
14. Risk Assessment and Risk Management Plan

Supplementary Documents

15. Financial Management Assessment
16. Social Development Action Plan
17. Innovative Features of the Project
18. Report and Recommendation of the President for Mongolia:
Regional Road Development and Maintenance Project