



Report and Recommendation of the President to the Board of Directors

Project Number: 52042-001
November 2019

Proposed Grant Republic of Tajikistan: Central Asia Regional Economic Cooperation Corridors 2, 3, and 5 (Obigarm–Nurobod) Road Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 17 October 2019)

Currency unit	–	somoni (TJS)
TJS1.00	=	\$0.1032
\$1.00	=	TJS9.6911

ABBREVIATIONS

ADB	–	Asian Development Bank
AIIB	–	Asian Infrastructure Investment Bank
CAREC	–	Central Asia Regional Economic Cooperation
CSC	–	construction supervision consultant
EBRD	–	European Bank for Reconstruction and Development
EMP	–	environmental management plan
GAP	–	gender action plan
km	–	kilometer
LARP	–	land acquisition and resettlement plan
m	–	meter
MOT	–	Ministry of Transport
OFID	–	OPEC Fund for International Development
PAM	–	project administration manual
PBM	–	performance-based maintenance
PCC	–	project coordinating committee
PIURR	–	Project Implementation Unit for Roads Rehabilitation
PMC	–	project management consultant
PPRA	–	project procurement risk assessment

NOTE

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

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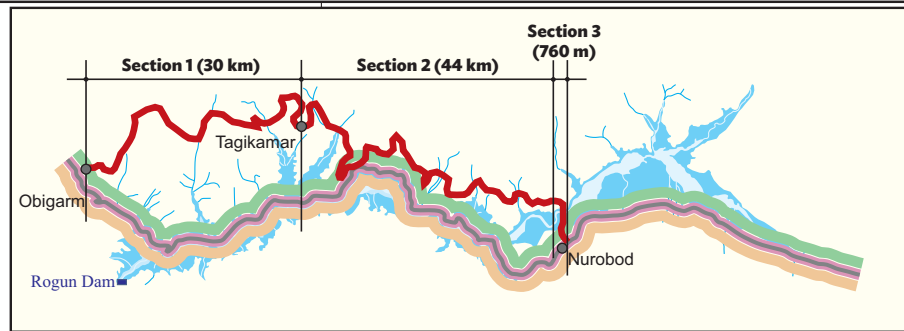
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PROJECT AT A GLANCE

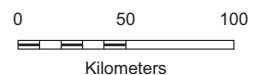
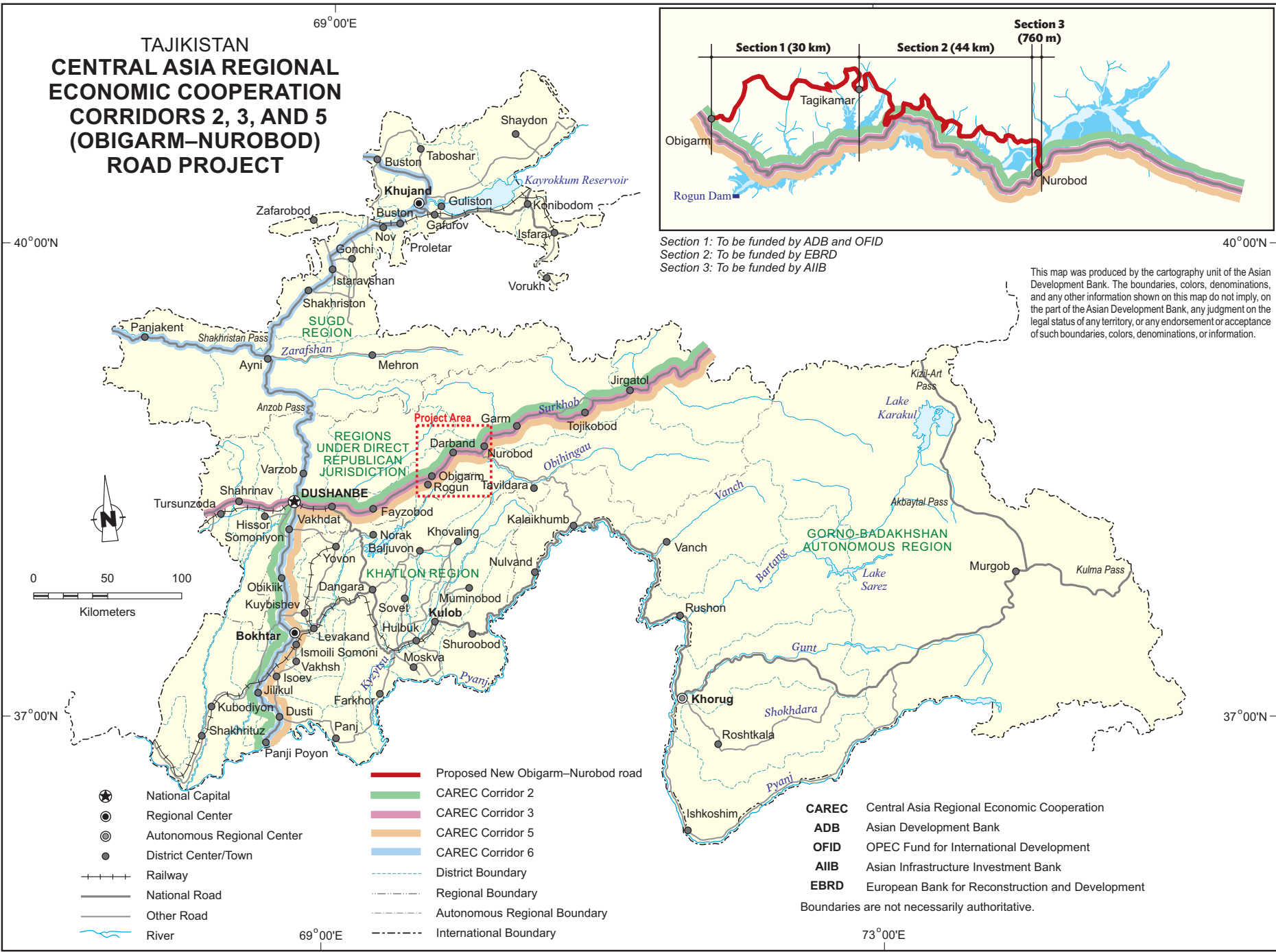
1. Basic Data		Project Number: 52042-001	
Project Name	Central Asia Regional Economic Cooperation Corridors 2, 3, and 5 (Obigarm-Nurobod) Road Project	Department/Division	CWRD/CWTC
Country Borrower	Tajikistan Republic of Tajikistan	Executing Agency	Ministry of Transport
Country Economic Indicators	https://www.adb.org/Documents/LinkedDocs/?id=52042-001-CEI		
Portfolio at a Glance	https://www.adb.org/Documents/LinkedDocs/?id=52042-001-PortAtaGlance		
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Transport	Road transport (non-urban)		110.00
		Total	110.00
3. Operational Priorities		Climate Change Information	
✓ Addressing remaining poverty and reducing inequalities		Climate Change impact on the Project	Medium
✓ Accelerating progress in gender equality			
✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability		ADB Financing	
✓ Fostering regional cooperation and integration		Adaptation (\$ million)	10.00
Sustainable Development Goals		Gender Equity and Mainstreaming	
SDG 3.6		Effective gender mainstreaming (EGM)	✓
SDG 9.1			
SDG 13.a		Poverty Targeting	
		General Intervention on Poverty	✓
4. Risk Categorization:	Complex		
5. Safeguard Categorization	Environment: A Involuntary Resettlement: B Indigenous Peoples: C		
6. Financing			
Modality and Sources		Amount (\$ million)	
ADB		110.00	
Sovereign Project grant: Asian Development Fund		110.00	
Cofinancing		230.00	
Asian Infrastructure Investment Bank - Project loan (Not ADB Administered)		40.00	
European Bank for Reconstruction and Development - Project loan (Not ADB Administered)		150.00	
OPEC Fund for International Development - Project loan (Not ADB Administered)		40.00	
Counterpart		28.10	
Government		28.10	
Total		368.10	
Currency of ADB Financing: US Dollar			

TAJIKISTAN CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDORS 2, 3, AND 5 (OBIGARM–NUROBOD) ROAD PROJECT



Section 1: To be funded by ADB and OFID
Section 2: To be funded by EBRD
Section 3: To be funded by AIIB

This map was produced by the cartography unit of the Asian Development Bank. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.



- ★ National Capital
- Regional Center
- ⊙ Autonomous Regional Center
- District Center/Town
- ++++ Railway
- National Road
- Other Road
- ~ River

- Proposed New Obigarm–Nurobod road
- CAREC Corridor 2
- CAREC Corridor 3
- CAREC Corridor 5
- CAREC Corridor 6
- District Boundary
- Regional Boundary
- Autonomous Regional Boundary
- International Boundary

- CAREC** Central Asia Regional Economic Cooperation
 - ADB** Asian Development Bank
 - OFID** OPEC Fund for International Development
 - AIIB** Asian Infrastructure Investment Bank
 - EBRD** European Bank for Reconstruction and Development
- Boundaries are not necessarily authoritative.

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed grant to the Republic of Tajikistan for the Central Asia Regional Economic Cooperation Corridors 2, 3, and 5 (Obigarm–Nurobod) Road Project.

2. The project will improve connectivity and safety along the Obigarm–Nurobod road by (i) constructing about 30 kilometers (km) of climate-resilient, two-lane highway between Obigarm and Tagikamar and about 30 km of all-weather village access roads, and increasing road safety awareness; (ii) strengthening the institutional capacity of the Ministry of Transport (MOT) on road asset management; and (iii) enhancing women’s access to economic opportunities.¹ The project expands efforts of the Asian Development Bank (ADB) and other development partners to upgrade the country’s national highway network along key economic corridors. It will enhance inclusive economic growth and regional connectivity.

II. THE PROJECT

A. Rationale

3. **Regional connectivity.** Tajikistan is landlocked and bordered by Afghanistan, the People’s Republic of China, the Kyrgyz Republic, and Uzbekistan. The country has a gross domestic product per capita of just \$822, and about 30% of the population still lived below the poverty line in 2018. Tajikistan depends heavily on its road transport corridors to support investment, job creation, trade, and ultimately economic growth and poverty reduction. Almost 70% of the population lives in rural areas, in a largely mountainous territory (90%) where only 10% of the land is suitable for cultivation. The road transport subsector suffers from low quality, long travel times, and poor reliability. Four Central Asia Regional Economic Cooperation (CAREC) regional corridors (2, 3, 5, and 6) cross parts of Tajikistan, offering the opportunity for Tajikistan to enhance its connectivity and trade competitiveness.

4. **Road subsector policy context.** The development of the transport sector in Tajikistan is guided by the government’s National Development Strategy and the Transport Sector Master Plan,² and implemented through the State Program on Transport Sector Development, 2010–2025. The Transport Sector Master Plan, developed with ADB assistance, is the basis for the government’s strategic sector planning. As such, it provides a framework for coordination among government bodies and development partners. The State Program on Transport Sector Development includes a list of short-, medium-, and long-term investments that is regularly reviewed and updated.

5. Tajikistan is vulnerable to the impacts of climate change and has high exposure to natural hazards.³ In particular, mountainous areas face adverse and worsening conditions as a result of climate change, with increased frequency of extreme precipitation events, avalanches, landslides, and mudflows. Accordingly, the government has prioritized and committed to reducing the risks

¹ The Asian Development Bank (ADB) provided transaction technical assistance for the project: ADB. Tajikistan. [Preparing the CAREC Corridors 2, 3, and 5 \(Obigarm–Nurobod\) Road Project](#) (TA 9530-TAJ). Manila.

² Government of Tajikistan. 2017. *National Development Strategy of the Republic of Tajikistan for the Period up to 2030*. Dushanbe; and ADB. 2011. [Developing Tajikistan’s Transport Sector: Transport Sector Master Plan](#). Manila.

³ United Nations Office for Disaster Risk Reduction. 2015. *Global Assessment Report on Disaster Risk Reduction: Tajikistan Country Risk Profile*. Geneva. https://www.preventionweb.net/english/hyogo/gar/2015/en/profiles/GAR_Profile_TJK.pdf (accessed 17 July 2019).

of climate change and disasters triggered by natural hazards through investment in climate-resilient infrastructure including roads, bridges, and tunnels, and developing early warning systems.⁴

6. **Subsector performance.** The road network under the MOT's jurisdiction totals 14,220 km, comprising 3,348 km of international roads (24%), 2,128 km of national roads (15%), and 8,744 km of local roads (61%). While most (85%) of the international roads are in good or fair condition, about 48% of the national roads are in poor condition. The road network was largely constructed before the 1970s, and the rapid increase in traffic on some arterial roads is intensifying pressure on aging transport infrastructure. Travelling through and within Tajikistan can be time-consuming, uncomfortable, and expensive, and disproportionately affects women's access to jobs, markets, and public services.

7. The government has made recent efforts to improve road maintenance programming through the progressive development of a road asset management system under ADB and World Bank financing. ADB has further supported the piloting of four performance-based maintenance (PBM) contracts that has increased participation of the private sector and improved maintenance practices. Apart from construction and PBM contracts, opportunities for private sector participation in the road subsector appear to be rather limited. The MOT now intends to gradually institutionalize road asset management system and PBM approaches to enable upscaling and alignment with the government's planning and budgeting processes. With regards to road safety, the World Health Organization estimated that there were 1,577 road traffic fatalities in 2016, which corresponds to about 18.8 fatalities per 100,000 people, compared with 15.4 fatalities per 100,000 people in the Kyrgyz Republic.⁵ The government is in the process of developing guidelines on safe arterial road design and implementing a national road safety program (\$10 million) to improve priority road sections where crashes are occurring.⁶

8. The backbone of the national road network has been largely improved with assistance from ADB and development partners. Since 1998, ADB has financed 10 transport projects totaling about \$600 million, most of which have been implemented by the Project Implementation Unit for Roads Rehabilitation (PIURR) under the MOT. ADB's investments have significantly contributed to (i) improving about 950 km of international and national roads on CAREC corridors and 350 km of rural roads, (ii) strengthening capacities on road safety and asset management, and (iii) enhancing cross-border infrastructure and performance (particularly at the border with the Kyrgyz Republic). ADB, together with development partners, will continue assisting the government in implementing the Regional Road Safety Strategy for CAREC Countries and advancing the asset management agenda through continuous policy dialogue and priority sector reforms.⁷

9. **Obigarm–Nurobod road.** The Obigarm–Nurobod road section of the existing M41 highway is located at the confluence of CAREC corridors 2, 3, and 5. This 75-km-long road connects Dushanbe to the northeast region of Tajikistan and the Kyrgyz Republic, and carries about 2,000 vehicles per day. The existing road will be inundated once the Rogun hydropower plant reservoir has filled to operating levels. The realignment of this road section is not part of the Rogun hydro power plant project. A bypass road must be completed and opened to traffic by

⁴ ADB. 2018. [Report and Recommendation of the President to the Board of Directors: Proposed Grant to the Republic of Tajikistan for the National Disaster Risk Management Project](#). Manila.

⁵ World Health Organization. 2018. [Global Status Report on Road Safety 2018](#). Geneva.

⁶ ADB. 2018. [Report and Recommendation of the President to the Board of Directors: Proposed Grant for Additional Financing to the Republic of Tajikistan for the Central Asia Regional Economic Cooperation Corridors 2, 5, and 6 \(Dushanbe–Kurgonteppa\) Road Project](#). Manila.

⁷ ADB. 2017. [Safely Connected: A Regional Road Safety Strategy for CAREC Countries, 2017–2030](#). Manila.

November 2023, by which time the rising water in the hydropower plant reservoir will have inundated several critical sections of the M41 highway. No other part of Tajikistan's national highway network can provide for this traffic, and the only alternative route would entail a deviation of about 320 km.

10. The government has requested the assistance of ADB, the Asian Infrastructure Investment Bank (AIIB), the European Bank for Reconstruction and Development (EBRD), and the OPEC Fund for International Development (OFID) to construct a safe and climate-resilient, two-lane road restoring connectivity between Obigarm and Nurobod. The road has been divided into three sections: (i) the Obigarm–Tagikamar section is about 30.0-km long and includes two tunnels of 1.6 km and 1.7 km and village access roads (section 1; hereinafter referred to as project roads; to be financed by ADB and OFID); (ii) the Tagikamar–Nurobod section is about 44.0-km long and includes one 2.6-km tunnel, one long temporary bridge, and village access roads (section 2; to be financed by the EBRD); and (iii) a 760-meter (m) long bridge and its approaches (section 3; to be financed by the AIIB).

11. **Strategic fit.** The project is aligned with ADB's Strategy 2030 and supports four of its seven operational priorities: (i) addressing remaining poverty and reducing inequalities (para. 41); (ii) accelerating progress in gender equality (para. 42); (iii) tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability (para. 29); and (iv) fostering regional cooperation and integration (para. 3).⁸ Improving the project road is a government priority, as reflected by its inclusion in the country operations business plan for Tajikistan, 2019–2021.⁹ The project is consistent with ADB's country partnership strategy for Tajikistan, 2016–2020, which aims to improve physical connectivity and enhance regional integration.¹⁰ The project will also contribute to the goals of CAREC 2030 and the forthcoming CAREC Transport Strategy, 2030 by improving connectivity and competitiveness along three key economic corridors.¹¹

12. **Lessons learned.** The country assistance program evaluation for Tajikistan, 1998–2013 rated ADB's transport sector and trade facilitation *successful*.¹² Out of the last three project completion and validation reports (2014 and 2018), two projects were rated *successful* while one project was rated *less than successful*. Lessons from completed and ongoing projects include the need to (i) foster climate change and disaster risk activities into the country development agenda; (ii) enhance the integration of road safety, gender-sensitive, and socially inclusive features in project designs; and (iii) prioritize sustainability of investments and continue strengthening the MOT's capacities. These lessons have been incorporated into the design of the project in synergy with ADB and other development partners interventions.

B. Project Description

13. The project is aligned with the following impacts: (i) economic growth promoted (footnote 2), (ii) infrastructure and economic connectivity improved (footnote 11), and (iii) competitive

⁸ ADB. 2018. [Strategy 2030. Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific](#). Manila.

⁹ ADB. 2018. [Country Operations Business Plan: Tajikistan, 2019–2021](#). Manila.

¹⁰ ADB. 2016. [Country Partnership Strategy: Tajikistan, 2016–2020](#). Manila.

¹¹ ADB. 2017. [CAREC 2030. Connecting the Region for Shared and Sustainable Development](#). Manila; and ADB. 2019. Central Asia Regional Economic Cooperation Transport Strategy, 2030 (draft).

¹² ADB. 2014. [Country Assistance Program Evaluation: Tajikistan, Responding to the Changing Development Conditions](#). Manila.

corridors across the CAREC region established (footnote 11). The project will have the following outcome: connectivity and safety along the Obigarm–Nurobod road improved.¹³

14. Output 1: Project roads constructed, and road safety awareness increased. This output will include the construction of (i) about 30 km of climate-resilient, two-lane highway between Obigarm and Tagikamar; and (ii) about 30 km of all-weather village access roads that will serve 11 villages. The project roads will include safety facilities fitted for the elderly, children, women, and differently abled. This output will also include the development of a gender-sensitive road safety awareness campaign targeting roadside villages and schools.

15. Output 2: The MOT’s institutional capacity on asset management strengthened. This output will include (i) the development of tailored tolling options and preparation of priority and viable tolling projects; (ii) the development and dissemination of annual statistics and analytics on the road network under the MOT’s jurisdiction; and (iii) training of selected MOT and Government Automobile Road Establishment staff (50% of whom will be women) on tunnel operation and management, including climate change and disaster risk management.

16. Output 3: Women’s access to economic opportunities enhanced. This output will include (i) designing and implementing a women’s entrepreneurship program, (ii) training women on business development and financial management, and (iii) facilitating access to the government’s targeted grants for women entrepreneurs. The delivery of this output will involve close coordination with the National Committee of Women and Family Affairs, and local authorities.

C. Value Added by ADB

17. The size of ADB’s transport sector portfolio, coupled with its leading role in the CAREC transport program, has positioned ADB to successfully support the government’s sector strategies, policies, and projects. A number of knowledge products were developed through ADB regional and advisory technical assistance projects, including the Transport Sector Master Plan (2011), which laid the groundwork for the development of the State Program on Transport Sector Development, 2010–2025 (para. 4).

18. Through the project, ADB will help the government in (i) ensuring that adequate features on gender, climate change adaptation, disaster risk management, and road safety are incorporated into the engineering design; (ii) structuring the project and mobilizing cofinancing resources (\$230 million) to ensure effective and timely implementation of the project; and (iii) advancing the road asset management agenda to improve sector sustainability (para. 34).

D. Summary Cost Estimates and Financing Plan

19. The project is estimated to cost \$178.1 million (Table 1). Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM).¹⁴

¹³ The design and monitoring framework is in Appendix 1.

¹⁴ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Table 1: Summary Cost Estimates
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Output 1: Project roads constructed, and road safety awareness increased	155.2
2. Output 2: Ministry of Transport's institutional capacity on asset management strengthened	0.2
3. Output 3: Women's access to economic opportunities enhanced	0.2
Subtotal (A)	155.6
B. Contingencies^c	20.1
C. Financing Charges During Implementation^d	2.4
Total (A+B+C)	178.1

^a Includes taxes and duties of \$24.8 million to be financed by the government through tax exemption.

^b In mid-2019 prices as of May 2019.

^c Physical contingencies computed at 5% for civil works and consulting services. Price contingencies computed at average of 1.6% on foreign exchange costs and 6.5% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Interest during construction for the OPEC Fund for International Development loan (\$2.4 million) has been computed at 2.25% per year during the project implementation period.

Source: Asian Development Bank estimates.

20. The summary financing plan is in Table 2. The government has requested a grant not exceeding \$110 million from ADB's Special Funds resources (Asian Development Fund) to help finance the project. ADB will finance the expenditures in relation to civil works, consulting services, and contingencies. The government has also requested OFID to provide a loan of \$40 million, which will exclusively cofinance the works contract for the construction of the Obigarm–Tagikamar road section as collaborative cofinancing. ADB will not administer the OFID loan. Each cofinancier will manage, in close coordination, its own pro rata share of disbursements for payments related to the cofinanced contract.

21. The government will contribute \$28.1 million to cover taxes and duties, land acquisition and resettlement costs, incremental administrative costs, and financing charges during implementation. ADB and OFID will not finance taxes. The government has agreed to secure all counterpart funds required for the smooth and effective implementation of the project, including any shortfall of funds or cost overruns, and to ensure that all such funds are released in a timely manner.

22. In addition, the government has requested loan financing from the EBRD (\$150 million) and the AIIB (\$40 million) to help finance the construction of other sections of the Obigarm–Nurobod road (para. 10). The EBRD and AIIB cofinancing will be parallel and collaborative and will not be administered by ADB.

Table 2: Summary Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank ^a		
Special Funds resources (ADF grant)	110.0	61.7
OPEC Fund for International Development (loan)	40.0	22.5
Government of Tajikistan	28.1	15.8
Total	178.1	100.0

ADF = Asian Development Fund.

^a Asian Development Bank (ADB) financing includes a \$10 million grant allocation from the ADF disaster risk reduction financing mechanism (ADB. 2016. *Supporting Disaster Risk Reduction*. Manila [paper prepared for the second ADF 12 replenishment meeting, Nepal, 24–27 February]).

Source: Asian Development Bank estimates.

23. Climate change adaptation under the project is estimated to cost \$15 million and comprises (i) extended tunnel portals to avoid expected increasing risks from natural hazards, (ii) increased retaining walls and mass movement protection to avoid landslides and rock falls, and (iii) resizing of ditches to cater for expected increase in extreme precipitation events. ADB will finance about 67% of adaptation costs, totaling \$10 million.¹⁵

E. Implementation Arrangements

24. The MOT will be the executing agency and its PIURR will be the implementing agency. The implementation arrangements are summarized in Table 3 and described in detail in the PAM (footnote 14). The project's procurement readiness is high, given that the three main contracts will be procured through advance contracting.¹⁶ The government has been advised that advance contracting does not commit ADB to finance the project.

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period	December 2019–June 2024		
Estimated completion date	30 June 2024		
Estimated grant closing date	31 December 2024		
Management			
(i) Executing agency	Ministry of Transport		
(ii) Implementing unit	Project Implementation Unit for Roads Rehabilitation		
Procurement	Open competitive bidding	1 contract	\$125,000,000
Consulting services	Quality- and cost-based selection	2 contracts	\$5,850,000
	Individual consultant selection	1 contract	\$75,000
	Least-cost selection	1 contract	\$75,000
Advance contracting	Advance contracting will be applied for civil works and consulting services. Any approval of advance contracting will not constitute a commitment by ADB to finance the project.		
Disbursement	The 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.

Source: ADB.

25. ADB and OFID will cofinance a single works contract for the construction of the project roads. ADB will be the sole financier of the consulting services contracts. Universal procurement will only apply to the single cofinanced contract. All contracts will be procured in accordance with the ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). ADB's Safeguard Policy Statement (2009) will apply for the ADB and OFID cofinanced section. During project implementation, ADB and OFID will jointly supervise and monitor the environmental and social aspects of the road construction. A memorandum of understanding will be signed between ADB and OFID, which will set out the terms and conditions under which cofinancing will take place with respect to the road construction.

26. A project coordinating committee (PCC) will be established and will meet regularly to review project overall progress across all three road sections and help resolve any issues related to project interfacing. While the PCC will serve as a coordinating platform, it will not have an oversight role with regard to the project's specific legal or contractual matters. The government

¹⁵ Climate Change Assessment (accessible from the list of linked documents in Appendix 2).

¹⁶ A bid for civil works was invited in August 2019 and a bid for expressions of interest for consulting services in September 2019.

will set out the PCC's roles and responsibilities in cooperation with project cofinanciers. The project management consultant (PMC) team will include a technical advisor and contract management specialist who will provide technical and secretarial support to the PCC.

III. DUE DILIGENCE

A. Technical

27. **Road design.** The road alignment will follow an alignment that was defined originally in the 1980s. Design alternatives to minimize the number and length of tunnels and bridges were considered and assessed. Reflecting the difficult terrain, the design of the Obigarm–Tagikamar road section provides for two tunnels (total length of 3.3 km) and six bridges (total length of 470 m). The road cross-section will be nominally two traffic lanes each 3.5-m wide with 2.5-m surfaced shoulders. This cross-section will be adequate for the traffic of about 6,500 vehicles per day that is projected to use the road up to the end of the economic evaluation period in 2048. Road pavements will be flexible with asphaltic concrete surfacing. The tunnel, road, and bridge designs have been prepared in accordance with appropriate design standards and take into account the adverse climatic conditions that exist in the project area.

28. **Road safety.** The road design meets internationally accepted standards and practices in terms of road safety, and the design review team included an international road safety specialist. Road safety audits will be carried out before and during construction, and prior to final acceptance of the completed road. The road safety audits will be conducted in close coordination with the traffic police and relevant government agencies. The road design also reflects consultations with communities living adjacent to the road, which have resulted in the inclusion of several village access roads and crossing places for people and livestock, with appropriate signs and markings.

29. **Climate change.** A detailed climate risk assessment was conducted for the project road for the period to 2050 to ensure that the design specifications are adequate for future climatic conditions (footnote 15). The frequency and magnitude of avalanches, floods, and landslides are likely to increase, and about 5% of the project road drainage systems were found to have potentially insufficient capacity under future extreme precipitation events. These drainage structures will be reviewed by the construction supervision consultant (CSC) during project implementation and their dimensions will be increased as appropriate.

30. The technical due diligence confirmed that the project road's technical design, alignment, cross-section, bridges, tunnels, drainage structures, pavements, and climate and road safety provisions are appropriate for a road of this standard in this location, and for the volume of traffic that is projected to use it.

B. Economic and Financial Viability

31. The economic analysis of the project was undertaken using the highway development and maintenance model and in accordance with ADB guidelines.¹⁷ Since the project is part of a coordinated initiative involving multiple financing agencies (para. 10) and benefits are contingent on completion of all sections, the economic analysis considered the 75-km road in its entirety. The incremental benefits of reductions in vehicle operating costs, travel times, and emissions were compared with the initial investment costs and changes in operation and maintenance costs over a 30-year appraisal period, comprising 5 years for implementation and 25 years for

¹⁷ ADB. 2017. [Guidelines for the Economic Analysis of Projects](#). Manila.

operation. Benefits which accrue to otherwise suppressed traffic (because of overly lengthy diversions) were taken into account, as this is a main economic rationale of the project.

32. The project was found to be highly economically viable, with a benefit–cost ratio of 3.7, an economic internal rate of return of 24.6%, and a net present value of \$605 million at a 9.0% discount rate. Sensitivity tests confirmed that the economic viability of the project is robust against (i) project cost increases of up to 366%, (ii) decreases in benefits of up to 27%, (iii) exclusion of benefits pertaining to trip suppression, (iv) a scenario with no diversion to Karamyk, and (v) a 2-year delay in project completion. The project will also help expand the regional benefits and cross-border spillovers supported by other ADB-assisted projects, including the improvement of (i) the Karamyk border crossing point at the Kyrgyz border,¹⁸ (ii) the Dushanbe–Uzbekistan border road,¹⁹ and (iii) the Dushanbe–Kurgonteppa road.²⁰

C. Sustainability

33. The project is nonrevenue generating, although tolling options will be explored at the road network level. The project road will be maintained under the government’s maintenance program. An assessment of the MOT’s road asset management practices and capabilities was carried out during project preparation. During 2010–2019, the annual budget for winter and routine maintenance doubled, from TJS34.0 million to TJS68.0 million. The compounded growth rate for the winter and routine maintenance budget was 7.2%, with an average annual inflation rate of 6.7%. The annual average incremental maintenance costs associated with the project are estimated to be in line with the current expenditure on international highways (about \$2,000 per km). However, the current budget allocation is insufficient to meet the overall network maintenance needs, especially in relation to periodic maintenance.

34. Recognizing the need to further expand its revenue base, the government has sought assistance from development partners to gradually (i) set up a road asset management unit within the MOT, (ii) establish a dedicated road maintenance fund, and (iii) introduce tolling on selected highway sections. The government has agreed with ADB and development partners to develop and implement a 5-year road map (2020–2024), including the abovementioned measures, to improve road maintenance and asset management across the road network.²¹ The road map will be translated into a government decree (or other appropriate government action acceptable to ADB), which should be adopted by June 2020.

35. The sustainability analysis concluded that, if these issues are addressed, the MOT has sufficient human and financial capacity, within the government’s budgetary procedures, to meet recurrent expenditures to adequately operate and maintain the project roads over the economic life of the project.

¹⁸ ADB. 2013. [Report and Recommendation of the President to the Board of Directors: Proposed Loan and Grants to the Kyrgyz Republic and the Republic of Tajikistan: Central Asia Regional Economic Cooperation Regional Improvement of Border Services Project](#). Manila.

¹⁹ ADB. 2010. [Report and Recommendation of the President to the Board of Directors: Proposed Grant to the Republic of Tajikistan for the Central Asia Regional Economic Cooperation Corridor 3 \(Dushanbe–Uzbekistan Border\) Improvement Project](#). Manila.

²⁰ ADB. 2016. [Report and Recommendation of the President to the Board of Directors: Proposed Loan, Grant, and Administration of Grant to the Republic of Tajikistan for the Central Asia Regional Economic Cooperation Corridors 2, 5, and 6 \(Dushanbe–Kurgonteppa\) Road Project](#). Manila.

²¹ Road Asset Management Road Map (accessible from the list of linked documents in Appendix 2).

D. Governance

36. **Financial management.** The financial management assessment was undertaken in May 2019 in accordance with ADB guidelines.²² The overall inherent risk has been assessed *substantial*, mainly reflecting the findings of the 2017 public expenditure and financial accountability assessment on country-specific risks related to internal audit. The overall control risk has been assessed *moderate* because of (i) the slow improvement of process formalization and record keeping practices and (ii) the lack of regular internal audit by the MOT. The combined premitigation financial risk assessment is therefore assessed *substantial*. The financial management assessment further concluded that, if these issues are addressed, the PIURR has sufficient and appropriate financial management capacity to implement the project. The PIURR will maintain adequate and separate project records and accounts, which will be audited annually by an independent auditor.

37. **Procurement.** A project procurement risk assessment (PPRA) was undertaken in April 2019 in accordance with ADB guidelines.²³ The PPRA considered the PIURR's capacity with regard to organization and staffing, information management, procurement practices, complaint and dispute resolution mechanisms, and accountability measures. The PPRA concluded that the procurement risk is *moderate* because of (i) the growing portfolio of externally funded projects that may lead to insufficient staffing within the PIURR and (ii) record management systems and procedures that need further improvement. The PPRA concluded that, if these issues are addressed, the PIURR has sufficient and appropriate procurement capacity to implement the project.

38. Procurement arrangements were made to achieve the best value for money. For the civil works, because of the relatively limited size of the highway section (30 km), procurement will be conducted for one contract package (comprising all project roads) through open competitive bidding using the one stage, two envelope method and to be awarded to the lowest evaluated substantially responsive bidder. For each of the main consultant services (construction supervision and project management services), the quality- and cost-based selection approach (90% for quality and 10% for cost) will be used.

39. **Institutional capacity.** The MOT and PIURR have an adequate understanding of ADB's procurement and financial management policies and procedures as a result of the sizable portfolio of ADB-assisted transport operations (para. 8). The PIURR will be assisted during project implementation by the PMC, the CSC, and relevant MOT departments.

40. **Anticorruption.** ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government, the MOT, and the PIURR. The specific policy requirements and supplementary measures are described in the PAM (footnote 14).

E. Poverty, Social, and Gender

41. Socioeconomic surveys and gender assessment were carried out during project preparation, and a summary poverty reduction and social strategy was prepared.²⁴ The project area can be characterized as a series of isolated mountain villages where the major economic activities are agriculture and animal husbandry. Almost every household has some land and

²² ADB. 2009. [Financial Due Diligence: A Methodology Note](#). Manila; and ADB. 2005. [Guidelines for the Financial Management and Analysis of Projects](#). Manila.

²³ ADB. 2015. [Guide on Assessing Procurement Risks and Determining Project Procurement Classification](#). Manila.

²⁴ Summary Poverty Reduction and Social Strategy (accessible from the list of linked documents in Appendix 2).

livestock. At *jamoat* (subdistrict) level, official data shows a poverty rate of about 13.5%. Community consultations revealed that the actual rate was likely much higher, as the process for registering as a poor household is administratively cumbersome. The project will directly benefit about 3,500 households located in seven roadside villages by improving access to jobs, markets, and public services while reducing road traffic fatalities and injuries.

42. The project is categorized effective gender mainstreaming. The project will address the gender issues identified during project preparation, which include enhancing connectivity of the villages through all-weather village access roads, increasing road safety features and awareness, and enhancing women's access to job and training opportunities. A gender action plan (GAP) was prepared in consultation with project beneficiaries and government officials.²⁵ The GAP will include activities supporting (i) gender-responsive and socially inclusive design features across all infrastructure built under the project, (ii) affirmative measures to enhance women's access to economic opportunities, and (iii) sex-disaggregated monitoring and reporting of project progress and achievements. The PMC team will include a gender specialist who will assist the PIURR in implementing and monitoring the GAP.

F. Safeguards

43. In compliance with ADB's Safeguard Policy Statement (2009), the project's safeguard categorization is A for environmental impacts, B for involuntary resettlement impacts, and C for indigenous peoples.²⁶ All safeguard documents were prepared based on meaningful consultations with affected people and communities endorsed by the government authorities, and disclosed on the ADB website in accordance with ADB's Access to Information Policy.²⁷ A stakeholder engagement plan was also developed during project preparation and will be further updated throughout project implementation.²⁸

44. Grievance redress, monitoring, and reporting procedures have been agreed with the PIURR and specified in all safeguard documents. During project implementation, all safeguards documents will be updated as necessary, reviewed by ADB, and publicly disclosed. The project includes adequate resources to implement and monitor environmental and social mitigation measures. The MOT and PIURR are experienced in implementing road projects with significant social and environmental impacts. The PIURR will be assisted by the CSC and PMC to manage grievances and ensure compliance with the project's safeguard requirements, and will prepare semiannual safeguards monitoring reports for ADB's review and disclosure.

45. **Environment (category A).** An environmental impact assessment and an environmental management plan (EMP) were prepared and disclosed on the ADB and MOT websites on 19 July 2019. The main anticipated site-specific impacts during construction include air and surface water pollution, noise and vibration, soil erosion, soil material disposal, loss or degradation of natural habitat, occupational health and safety, relocation of utilities, and traffic disruption. The relatively short-term nature of these impacts mean that generally impacts will not be significant if the EMP is implemented correctly. During the operation phase, the main anticipated residual impacts include those from noise on the overall landscape. An impact assessment was also conducted for the village access roads. Adequate mitigation measures and monitoring requirements have been included in the EMP and will be implemented through the civil works contract and monitored through the CSC and PMC contracts. The EMP will be updated into a site-specific EMP by the

²⁵ Gender Action Plan (accessible from the list of linked documents in Appendix 2).

²⁶ ADB. [Safeguard Categories](#).

²⁷ ADB. 2018. [Access to Information Policy](#). Manila.

²⁸ Stakeholder Engagement Plan (accessible from the list of linked documents in Appendix 2).

works contractor, and will include a number of site- and topic-specific EMPs. No physical works will be allowed prior to approval of the site-specific EMP by the CSC and PIURR.

46. **Involuntary resettlement (category B).** A land acquisition and resettlement plan (LARP) was prepared and disclosed on the ADB and MOT websites in August 2019. The census carried out during project preparation identified 62 households (502 people) that will be affected directly by land acquisition for the project. Nine households with 68 people will experience severe impact on their livelihoods. These include four households losing their residential buildings, one household losing more than 10% of its productive agricultural land, three petrol station workers losing their employment, and one business losing its main building and operating business. A total of 29 households have been classified *vulnerable*. All affected people will receive adequate compensation in accordance with the provisions included in the LARP. The village access roads (typically 5-m wide) will be designed to the extent possible on their existing alignments to have minimal resettlement impacts. An impact assessment was conducted for the village access roads based on a preliminary design, and was included in the LARP. When the detailed design is finalized, a LARP addendum will be prepared, approved, and implemented prior to displacing affected people and commencing the works.

47. **Indigenous peoples (category C).** There are no indigenous peoples in the project area as defined in ADB's Safeguard Policy Statement.

G. Summary of Risk Assessment and Risk Management Plan

48. Significant risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.²⁹ The project risks are considered manageable through the prescribed mitigation measures.

Table 4: Summary of Risks and Mitigation Measures

Risks	Mitigation Measures
Insufficient allocation of funds to maintain the project roads and facilities	The government, with support from the project cofinanciers (Asian Development Bank, Asian Infrastructure Investment Bank, European Bank for Reconstruction and Development, and OPEC Fund for International Development), has agreed to develop and implement a 5-year plan to improve road maintenance and asset management across the road network. The government and the Asian Development Bank have agreed on a covenant to ensure that the project road and facilities will receive timely and adequate maintenance.
Lack of coordination to facilitate and manage the interfacing of road construction	A project coordination committee will be established prior to mobilization of the works contractors. The committee will meet regularly to review the overall project progress and resolve any issues that are relevant to the overall project across all three road sections. These issues may be related to technical, safeguards, contractual, or schedule, aspects, or any other activities that could impact the successful implementation of the overall project.

Source: Asian Development Bank.

IV. ASSURANCES AND CONDITIONS

49. The government, MOT, and the PIURR have assured ADB that implementation of the project shall conform to all applicable ADB requirements, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and grant documents. The government, MOT, and the PIURR have agreed with ADB on certain covenants for the project, which are set forth in the draft grant agreement.

²⁹ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

50. Effectiveness of the ADB grant will be conditional upon the effectiveness of the OFID loan, and disbursement of the grant proceeds will be conditional upon (i) exemption of the project from taxes and duties and (ii) allocation of funds for implementation of the resettlement plan.

V. RECOMMENDATION

51. I am satisfied that the proposed grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the grant not exceeding \$110,000,000 to the Republic of Tajikistan from ADB's Special Funds resources (Asian Development Fund) for the Central Asia Regional Economic Cooperation Corridors 2, 3, and 5 (Obigarm–Nurobod) Road Project, on terms and conditions that are substantially in accordance with those set forth in the draft grant agreement presented to the Board.

Takehiko Nakao
President

6 November 2019

DESIGN AND MONITORING FRAMEWORK

Impacts the Project is Aligned with			
Economic growth promoted (Tajikistan National Development Strategy) ^a Infrastructure and economic connectivity improved (CAREC 2030) ^b Competitive corridors across the CAREC region established (CAREC Transport Strategy 2030) ^c			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Outcome Connectivity and safety along the Obigarm–Nurobod road improved	By 2025: a. Average daily vehicle-km reached 84,500 in the first full year of operation of the project road (2018 baseline: 57,700) b. Road traffic deaths and injuries per 100 million vehicle-km of travel on the project road reduced by 25% (2018 baseline: 3.6) ^c	a. Project final report from PMC b. Annual statistics on road accidents from MOT	Lack of coordination to facilitate and manage the interfacing of road construction
Outputs 1. Project roads constructed and road safety awareness increased	By 2024: 1a. About 30 km of climate-resilient, two-lane highway constructed from Obigarm to Tagikamar (2018 baseline: 0) ^{d,e} 1b. About 30 km of all-weather village access roads constructed (2018 baseline: 0) ^{d,e} 1c. At least 70% of roadside village residents (50% of whom are women) have increased awareness on road safety (2018 baseline: 0) ^c	1a.–1b. Project final report from PMC 1c. Road safety reports from PMC	Insufficient allocation of funds to maintain the project roads and facilities
2. MOT's institutional capacity on asset management strengthened	By 2024: 2a. Tailored tolling options developed and two priority and viable tolling projects prepared (2018 baseline: 0) 2b. Annual road statistics and analytics reports developed and disseminated (2018 baseline: not applicable [annual analytical report not yet developed and disclosed]) ^c 2c. At least 20 MOT and GUSAD staff, including 50% women, have increased knowledge and skills on operation and maintenance of tunnels, including climate change and disaster risk management (2018 baseline: 0) ^c	2a. Project final report from PMC 2b. Annual statistical report from MOT 2c. Survey of training participants	
3. Women's access to economic opportunities enhanced	By 2024: 3a. Women's entrepreneurship program designed and implemented (2018 baseline: 0) 3b. At least 50 women gained knowledge and skills on business development and financial management (2018 baseline: 0) 3c. At least 10 women from the project area received government grant for women entrepreneurs (2018 baseline: 0)	3a. Project final report from PMC 3b. Survey of training participants 3c. Project final report from PMC	
Key Activities with Milestones			
1. Project roads constructed, and road safety awareness increased			
1.1 Award civil works and construction supervision contracts by Q1 2020 and complete civil works by Q4 2023.			
1.2 Conduct road safety awareness campaigns to roadside villages and schools by Q4 2022.			

<p>2. MOT's institutional capacity on asset management strengthened</p> <p>2.1 Develop tailored tolling options and prepare priority and viable tolling projects by Q4 2024.</p> <p>2.2 Develop and disseminate annual road statistics and analytics reports by Q4 2022.</p> <p>2.3 Train selected MOT and GUSAD staff on tunnel operation and management by Q4 2023.</p> <p>3. Women's access to economic opportunities enhanced</p> <p>3.1 Design and implement a women's entrepreneurship program by Q4 2022.</p> <p>3.2 Train women on business development and financial management by Q4 2023.</p> <p>3.3 Facilitate access to government grants for women entrepreneurs by Q4 2023.</p>
<p>Inputs</p> <p>Asian Development Bank: \$110.0 million (Asian Development Fund grant)</p> <p>OPEC Fund for International Development: \$40.0 million (loan)</p> <p>Government of Tajikistan: \$28.1 million</p>
<p>Assumptions for Partner Financing</p> <p>European Bank for Reconstruction and Development: \$150 million (loan), about 45 km of climate-resilient, two-lane highway constructed between Tagikamar and Nurobod</p> <p>Asian Infrastructure Investment Bank: \$40 million (loan), two-lane highway bridge about 760 m long constructed to cross the Vakhsh River</p>

ADB = Asian Development Bank, CAREC = Central Asia Regional Economic Cooperation, GUSAD = Government Automobile Road Establishment, km = kilometer, m = meter, MOT = Ministry of Transport, PMC = project management consultant, Q = quarter.

^a Government of Tajikistan. 2017. *National Development Strategy of the Republic of Tajikistan for the Period up to 2030*. Dushanbe.

^b ADB. 2017. *CAREC 2030, Connecting the Region for Shared and Sustainable Development*. Manila.

^c ADB. 2019. *Central Asia Regional Economic Cooperation Transport Strategy, 2030* (draft).

^d Data to be disaggregated by sex.

^e Includes provision and installation of features and facilities suitable for the elderly, women, children, and differently abled people.

Source: Asian Development Bank.

Contributions to the ADB Results Framework:

To be determined.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=52042-001-2>

1. Grant Agreement
2. Sector Assessment (Summary): Transport (Road Transport [Nonurban])
3. Project Administration Manual
4. Economic and Financial Analysis
5. Summary Poverty Reduction and Social Strategy
6. Risk Assessment and Risk Management Plan
7. Climate Change Assessment
8. Gender Action Plan
9. Environmental Impact Assessment
10. Resettlement Plan

Supplementary Documents

11. Stakeholder Engagement Plan
12. Road Asset Management Road Map