



Report and Recommendation of the President to the Board of Directors

Project Number: 49042-004
October 2016

Proposed Loan, Grant, and Administration of Grant Republic of Tajikistan: Central Asia Regional Economic Cooperation Corridors 2, 5, and 6 (Dushanbe–Kurgonteppa) Road Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 30 September 2016)

Currency unit	–	somoni (TJS)
TJS1.00	=	\$0.1270
\$1.00	=	TJS7.8722

ABBREVIATIONS

ADB	–	Asian Development Bank
CAREC	–	Central Asia Regional Economic Cooperation
CEF	–	Clean Energy Fund
EMP	–	environmental management plan
FMA	–	financial management assessment
IRI	–	international roughness index
km	–	kilometer
LARP	–	land acquisition and resettlement plan
MOT	–	Ministry of Transport
OFID	–	OPEC Fund for International Development
PAM	–	project administration manual
PIURR	–	Project Implementation Unit for Roads Rehabilitation
PMSCS	–	project management and contract supervision consultant

NOTE

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

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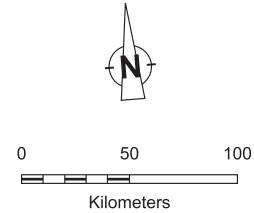
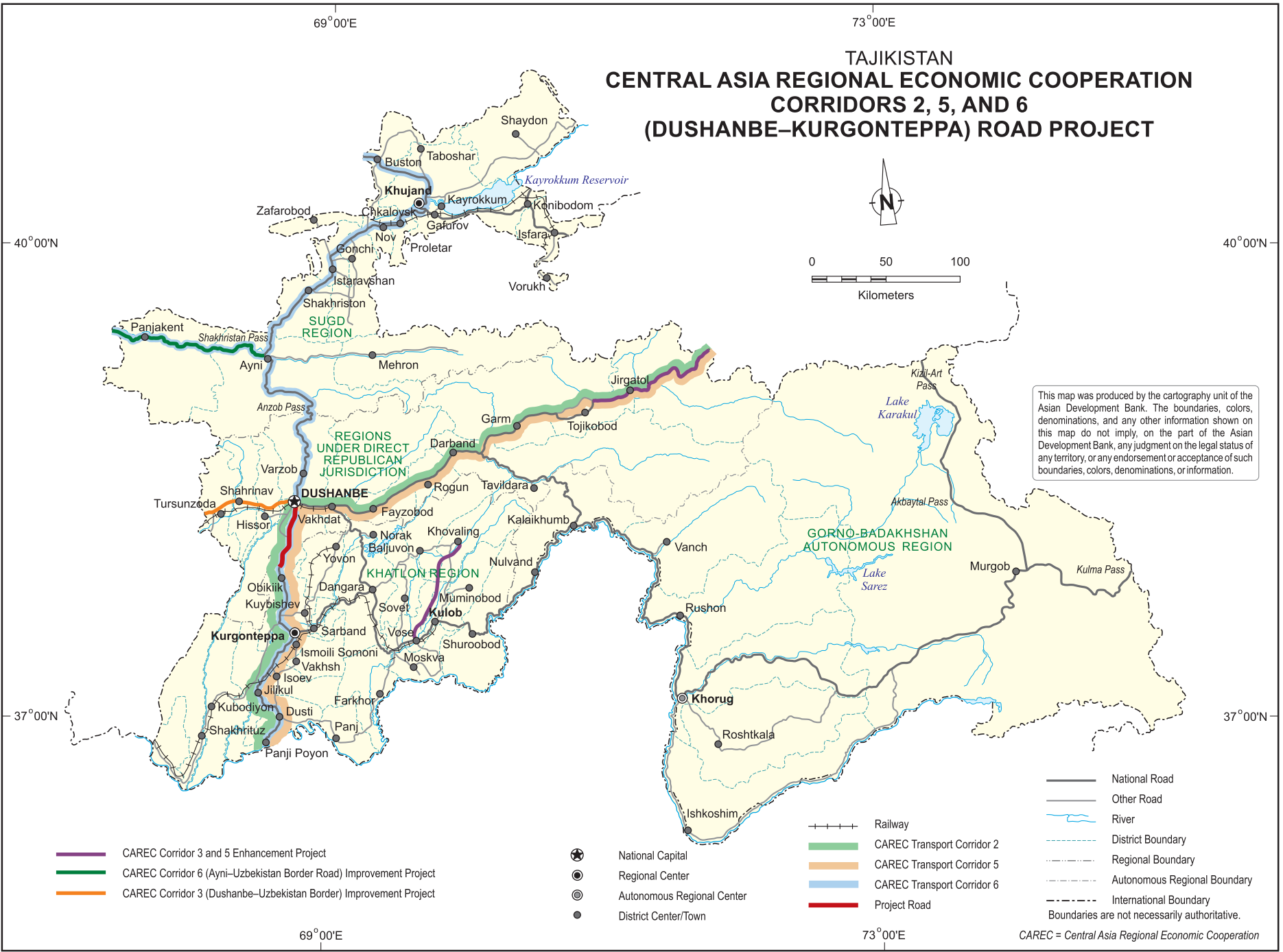
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PROJECT AT A GLANCE

1. Basic Data		Project Number: 49042-004	
Project Name	Central Asia Regional Economic Cooperation Corridors 2, 5, and 6 (Dushanbe–Kurgonteppa) Road Project	Department /Division	CWRD/CWTC
Country Borrower	Tajikistan	Executing Agency	Ministry of Transport
2. Sector		ADB Financing (\$ million)	
✓ Transport	Road transport (non-urban)		65.20
		Total	65.20
3. Strategic Agenda		Climate Change Information	
Subcomponents			
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Adaptation (\$ million)	0.40
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	Climate Change impact on the Project	Medium
Regional integration (RCI)	Pillar 1: Cross-border infrastructure		
4. Drivers of Change		Gender Equity and Mainstreaming	
Components			
Governance and capacity development (GCD)	Institutional development	Some gender elements (SGE)	✓
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas		
Partnerships (PAR)	International finance institutions (IFI) Official cofinancing		
5. Poverty and SDG Targeting		Location Impact	
Project directly targets poverty and SDGs	No	Regional	High
6. Risk Categorization:		Low	
7. Safeguard Categorization		Environment: B Involuntary Resettlement: B Indigenous Peoples: C	
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		65.20	
Sovereign Project grant: Asian Development Fund		15.80	
Sovereign Project loan: Asian Development Fund		49.40	
Cofinancing		14.00	
OPEC Fund for International Development - Loan		12.00	
Clean Energy Fund under the Clean Energy Financing Partnership Facility - Grant		2.00	
Counterpart		17.20	
Government		17.20	
Total		96.40	
9. Effective Development Cooperation			
Use of country procurement systems		No	
Use of country public financial management systems		No	

TAJIKISTAN CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDORS 2, 5, AND 6 (DUSHANBE-KURGONTEPPA) ROAD PROJECT



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- CAREC Corridor 3 and 5 Enhancement Project
- CAREC Corridor 6 (Ayni-Uzbekistan Border Road) Improvement Project
- CAREC Corridor 3 (Dushanbe-Uzbekistan Border) Improvement Project

- National Capital
- Regional Center
- Autonomous Regional Center
- District Center/Town

- Railway
- CAREC Transport Corridor 2
- CAREC Transport Corridor 5
- CAREC Transport Corridor 6
- Project Road

- National Road
- Other Road
- River
- District Boundary
- Regional Boundary
- Autonomous Regional Boundary
- International Boundary
- Boundaries are not necessarily authoritative.

CAREC = Central Asia Regional Economic Cooperation

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on (i) a proposed loan, and (ii) a proposed grant, both to the Republic of Tajikistan for the Central Asia Regional Economic Cooperation (CAREC) Corridors 2, 5, and 6 (Dushanbe–Kurgonteppa) Road Project.¹ The report also describes the proposed administration of a grant to be provided by the Clean Energy Fund (CEF),² under the Clean Energy Financing Partnership Facility, for the CAREC Corridors 2, 5, and 6 (Dushanbe–Kurgonteppa) Road Project, and if the Board approves the proposed loan and grant, I, acting under the authority delegated to me by the Board, approve the administration of the grant.

2. The proposed project will improve the connectivity between the capital Dushanbe and Kurgonteppa, which are two major cities and economic hubs in Tajikistan.³ The road is a strategic north–south link, and one of the most heavily traveled roads in the country, as well as the confluence of CAREC corridors 2, 5, and 6.

II. THE PROJECT

A. Rationale

3. **Regional integration and transport infrastructure needs.** Tajikistan is a landlocked mountainous country in Central Asia bordered by Afghanistan, the People’s Republic of China, the Kyrgyz Republic, and Uzbekistan. Despite its strategic location, the country has a gross domestic product per capita of just \$1,037, and 35% of the population still lived below the poverty line in 2013. 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. Tajikistan heavily depends on transport corridors to support investment, job creation, trade, and ultimately economic growth and poverty reduction. The road transport sector suffers from low quality, long travel times, and poor reliability, which hinder the country’s economic growth. Four CAREC regional corridors (2, 3, 5, and 6) cross parts of Tajikistan, offering a great opportunity for Tajikistan to enhance its connectivity and trade competitiveness.

4. **Inadequate road connectivity, efficiency, and safety.** The 27,000 kilometers (km) road network was largely constructed before the 1970s, and the rapid increase of traffic in some arterial roads is intensifying pressure on aging transport infrastructure. Tajikistan has limited links to neighboring countries, especially Afghanistan and the People’s Republic of China. The overall condition of the road network is relatively poor, which is due in part to the initial poor design and quality of construction, as well as inadequate subsequent maintenance of pavements and structures. Funding for routine and periodic road maintenance has increased steadily from TJS30.3 million in 2009 to TJS60.5 million in 2016. Yet, there is a funding gap to meet network maintenance needs. The lack of a road asset management system compounds the problem, thus the need to optimize the allocation of funds based on needs and functions. The road safety record in Tajikistan is dismal despite its low level of vehicle ownership (about 50 vehicles per 1,000 people). The World Health Organization estimates that there were 1,543 fatalities in 2013, which corresponds to 18.8 fatalities per 100,000 people. The transport system needs to be planned and operated to reduce road safety crashes. A better road asset management is needed to maintain the network in good serviceable condition and provide a

¹ The design and monitoring framework is in Appendix 1.

² Financing partners: the governments of Australia, Norway, Spain, Sweden, and the United Kingdom.

³ The Asian Development Bank (ADB) provided project preparatory technical assistance for the CAREC Corridors 2, 5, and 6 Road (Dushanbe–Kurgonteppa) Project (TA 8945-TAJ).

reliable service throughout the year to support Tajikistan's internal and external trade competitiveness.

5. **Road sector achievements and lessons.** The road network under MOT jurisdiction totals 13,968 km, comprising 3,178 km of international roads (23%), 2,120 km of national roads (15%), and 8,670 km of local roads (62%). The backbone of Tajikistan's national road network has been largely improved with assistance from the Asian Development Bank (ADB) and other development partners.⁴ ADB investments in the transport sector improved about 810 km of CAREC roads and 350 km of rural roads, introduced pilot projects on performance-based maintenance, raised awareness regarding road safety, and reduced cross-border barriers. Lessons from previous projects were incorporated into the design of this project, including giving specific attention to project readiness, and developing systems and capacity regarding financial management, road safety, and road asset management.

6. **Government sector strategy and plans.** The development of the transport sector is guided by the government's National Development Strategy and the Transport Sector Master Plan,⁵ 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. The size of the ADB transport sector program, coupled with its leading role in the CAREC transport program, has positioned ADB to successfully support the government's sector strategies, policies, and plans.

7. **Progressive improvement of the Dushanbe–Kurgonteppa road.** The government has requested ADB assistance to improve portions of CAREC corridors 2, 5, and 6 by upgrading the 82 km Dushanbe–Kurgonteppa road, for which ADB has programmed two projects in 2016 and 2018 as presented in the Tajikistan country operations business plan, 2016–2018.⁶ The project road passes through terrain that varies from flat to mountainous, and connects Dushanbe to Afghanistan. The first project will focus on improving an approximately 33 km section of the road from Dushanbe to Chashmasoron, hereinafter referred to as the project road. Financing of the second project, from Chashmasoron to Kurgonteppa, may be considered through additional financing subject to satisfactory progress on the first project.

8. Improving the road is a government priority, as reflected by its inclusion in the National Development Strategy, and its consistency with the ADB country partnership strategy.⁷ The project is also consistent with the CAREC Transport and Trade Facilitation Strategy 2020 and will contribute to achieving goals 3 (good health and well-being) and 9 (industry, innovation, and infrastructure) of the Sustainable Development Goals.⁸

9. **The project area.** Dushanbe is the capital and largest city in Tajikistan, with 775,000 residents. Kurgonteppa is the capital of the Khatlon region and the third-largest city in Tajikistan, with a population of about 100,000. Kurgonteppa is home to a number of industrial enterprises,

⁴ Development Coordination (accessible from the list of linked documents in Appendix 2).

⁵ Government of Tajikistan. 2007. *National Development Strategy of the Republic of Tajikistan for the period to 2015*. Dushanbe; and ADB. 2011. *Developing Tajikistan's Transport Sector—Transport Sector Master Plan*. Manila.

⁶ ADB has programmed \$66 million in 2018 to improve the remaining sections of the Dushanbe–Kurgonteppa road as presented in ADB. 2015. *Country Operations Business Plan: Tajikistan, 2016–2018*. Manila.

⁷ ADB. 2016. *Country Partnership Strategy: Tajikistan, 2016–2020*. Manila.

⁸ ADB. 2014. *CAREC Transport and Trade Facilitation Strategy, 2020*. Manila.

universities, colleges, and hospitals. Except for a 3.4 km section immediately south of Dushanbe, the project road has two lanes, with few safety features. It could serve as a powerful engine for regional integration and inclusive economic growth, but this potential is limited by three factors: road capacity, condition, and safety. In addition, during the winter season when glacial melt is at its lowest and energy demand the highest, villages and facilities along the project area experience frequent energy cuts, which affect road safety, restrict economic activities, and increase domestic hardship, especially for women.

10. **Transforming local challenges into national opportunities.** The project will support the government's program to progressively improve the road by (i) expanding its width from two to four lanes to address impending capacity constraints, (ii) improving its surface condition through construction of a new pavement, and (iii) providing well-designed safety facilities to address existing road safety deficiencies. The project will introduce clean energy technologies—such as solar street lighting and solar-based backup systems—to enhance power reliability and efficiency along the project road. This will contribute to improved living standards in the villages along the project road, and to reduced carbon dioxide emissions.

11. The project will also develop guidelines on safe arterial road design and initiate the development of a tailored road asset management system, with a view to incrementally strengthening MOT capacity in these areas. This approach will support a continued policy dialogue that will run parallel with progressive improvement of the road, and will be closely coordinated with other development partners active in the transport sector.

B. Impacts and Outcome

12. The project will be aligned with the following impacts: (i) the strategic pillar on promotion of economic growth of the Tajikistan National Development Strategy, and (ii) CAREC's strategic goal of establishing competitive corridors across the CAREC region. The outcome will be improved efficiency and safer movement of goods and people on selected sections of the Dushanbe–Kurgonteppa road.

C. Outputs

13. The outputs will be (i) improved road conditions, facilities, and safety along, and in the vicinity of, the project road (33 km);⁹ (ii) strengthened institutional capacity of MOT regarding financial management, road safety, and road asset management; and (iii) completed procurement readiness for the next section of the road to be improved, from Chashmasoron to Kurgonteppa.

D. Investment and Financing Plans

14. The project is estimated to cost \$96.4 million (Table 1).

⁹ Includes provision of road signs, pedestrian crossings, road lighting, livestock underpasses, bus stops, and improvement of rest areas and road bazaars.

Table 1: Project Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Civil works	73.3
2. Equipment	1.9
3. Land acquisition and resettlement	0.8
4. Consulting services	4.7
5. Incremental administrative expenses	0.5
Subtotal (A)	81.2
B. Contingencies^c	12.5
C. Financing Charges During Implementation^d	2.7
Total (A+B+C)	96.4

^a Includes taxes and duties of \$14.3 million to be financed from government resources.

^b In mid-2016 prices.

^c Physical contingencies computed at 10% for goods and civil works, and 5% for consulting services. Price contingencies computed at 1.5% on foreign exchange costs and 6.6% 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 Asian Development Bank loan (\$1.6 million) has been computed using Asian Development Fund rates at 1% per year during the project implementation period. Interest during construction for the Organization of the Petroleum Exporting Countries Fund for International Development loan (\$1.1 million) has been computed at 2.75% per year during the project implementation period. The interest charges of the Asian Development Bank loan will be capitalized.

Source: Asian Development Bank estimates.

15. The government has requested (i) a loan in various currencies equivalent to SDR35,289,000; and (ii) a grant not exceeding \$15.8 million, both from ADB's Special Funds resources, to help finance the project. The loan will have a 32-year term, including a grace period of 8 years, and an interest rate of 1.0% per annum during the grace period and 1.5% per annum thereafter, and such other terms and conditions set forth in the financing agreements.

16. The government has also requested the OPEC Fund for International Development (OFID) to provide a loan of \$12 million, which will finance exclusively a part of the civil works of the project road. The OFID loan will have a 20-year term, including a grace period of 5 years, and an interest rate of 2.75% per annum inclusive of a 1.00% service charge. ADB and OFID will cofinance the civil works of the project as collaborative cofinancing. ADB will not be administering the OFID loan and each cofinancier will manage, in close coordination, its own pro rata share of disbursements for civil works-related payments.

17. In addition, the CEF (footnote 2) under the Clean Energy Financing Partnership Facility will provide grant cofinancing equivalent to \$2 million, to be administered by ADB, to integrate clean energy and energy efficiency technologies for street lighting and power backup systems for communities living adjacent to the project road. This grant will also finance lighting improvement in the Ozodi tunnel on the Dushanbe–Dangara road to ensure that lighting is available on a 24-hour basis. ADB will fully administer the CEF grant on a parallel cofinancing basis. By virtue of the CEF cofinancing, universal procurement will generally apply to procurement and consulting services packages to be financed under the project.¹⁰ The government will provide counterpart funding of \$17.2 million equivalent to cover taxes and duties, land acquisition and resettlement costs, incremental administrative expenses, and other miscellaneous costs.

¹⁰ ADB. 2013. *Blanket Waiver of Member Country Procurement Eligibility Restrictions in Cases of Cofinancing for Operations Financed from Asian Development Fund Resources*. Manila.

18. The financing plan is in Table 2.

Table 2: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Special Funds resources (loan)	49.4	51.2
Special Funds resources (grant)	15.8	16.4
Clean Energy Fund ^a under the Clean Energy Financing Partnership Facility (grant)	2.0	2.1
OPEC Fund for International Development (loan)	12.0	12.5
Government	17.2	17.8
Total	96.4	100.0

^a Financing partners: the governments of Australia, Norway, Spain, Sweden, and the United Kingdom. Administered by the Asian Development Bank.

Source: Asian Development Bank estimates

E. Implementation Arrangements

19. The MOT will be the executing agency and its Project Implementation Unit for Road Rehabilitation (PIURR) will be the implementing agency. The MOT and PIURR have implemented 10 ADB-financed road projects since 2000. The PIURR will be assisted during project implementation by relevant MOT departments and the project management and contract supervision consultant (PMSCS).

20. The civil works contract will be supervised by the PMSCS, which will be the engineer for the contract as defined in the contract documentation. The scope of the PMSCS services will include design review, construction supervision, environment and resettlement monitoring, road safety audits, financial management support, and advance procurement activities for the proposed subsequent project. Two individual consultants will be recruited to support the PIURR in designing and procuring the solar power systems.

21. The implementation arrangements are summarized in Table 3 and described in detail in the project administration manual (PAM).¹¹

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period	April 2017–March 2021		
Closing date	30 September 2021		
Management			
(i) Executing agency	Ministry of Transport		
(ii) Implementation unit	Project Implementation Unit for Roads Rehabilitation Dushanbe, 16 staff		
Procurement: civil works	International competitive bidding	1 contract ^a	\$62.1 million
Procurement: goods	International competitive bidding	1 contract	\$1.6 million
Consulting services: project management and contract supervision	Quality- and cost-based selection	111 international person-months	\$4.0 million
		438 national person-months	

¹¹ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Consulting services: project auditing	Quality- and cost-based selection	9 international person-months	\$90,000
Consulting services: energy specialists (2 positions)	Individual consultant selection	4 international person-months	\$110,000
		8 national person-months	
Advance contracting	Advance contracting for civil works and consulting services for project management and contract supervision		
Disbursement	The loan and grant proceeds will be disbursed in accordance with the ADB <i>Loan Disbursement Handbook</i> (2015, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank

^a The OPEC Fund for International Development agreed to use ADB's standard bidding document and procedures in relation to this contract.

Source: Asian Development Bank.

III. DUE DILIGENCE

A. Technical

22. Present traffic volumes range from approximately 7,000–10,000 vehicles per day in the center section of the road to around 16,000 vehicles per day in the peri-urban sections on the outskirts of Dushanbe and Kurgonteppa. The road is projected to reach its capacity as a two-lane facility by 2020 for most of its length. Although its surface is on average in reasonable condition, with an average international roughness index (IRI) of around 6, this figure masks several significant sections where the pavement is deteriorating rapidly. Some sections of the road that were reconstructed under a previous ADB project have the lowest IRI, about 4 on average.¹² Overall, the road pavement requires improvement, either immediately or in the near to medium term, due to the emergence of cracking and potholes and damage to structures and drainage systems. The road also has a poor safety record, with a high concentration of accidents in the more heavily trafficked sections adjacent to Dushanbe and Kurgonteppa.

23. The completed road will have two carriageways, each with two traffic lanes 3.5 meters wide, separated by a median typically 3.0 meters wide in rural areas and narrower where the road passes through villages and difficult mountain terrain. This complies with the Tajikistan standard for roads of this category, and with Asian Highway standards. Since the existing two-lane road will reach capacity within 5 years, the proposed double carriageway four-lane configuration is appropriate. The project road alignment will follow the existing road alignment because of terrain considerations and to minimize land acquisition, with some adjustments to horizontal and vertical alignments to meet the required standards. The design speed will typically be 100 km per hour, which is appropriate for a road of this class in the terrain through which it passes.

24. The completed road will have a flexible pavement with asphaltic concrete surfacing (average IRI of 2). The pavement structure has been designed using appropriate design methods based on the traffic projected to use the road over a 20-year period (2021–2040) following project completion, assuming two asphaltic concrete overlays during this period to provide the additional strength required for traffic loading for the latter part of the road's service life. The road design takes into account the severe weather conditions that the road will experience, which range from high temperatures in summer to below freezing with heavy snowfall in winter. Relevant disaster risks and climate change adaptation and mitigation

¹² ADB. 2000. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of Tajikistan for the Road Rehabilitation Project*. Manila.

measures have also been factored into the design (drainage structures, slope stability, and solar street lighting).

25. The road design meets internationally accepted standards and practices in terms of road safety. The design will be subjected to detailed road safety audits before construction commences, during construction, and prior to final acceptance of the completed road. The road design also reflects consultations with communities living adjacent to the road, as a result of which several underpasses for people, livestock, and agriculture; pedestrian crossings with appropriate warning devices; and other community-relevant facilities will be provided.

26. This technical due diligence has confirmed that the project's technical design, alignment, cross-section, drainage structures, pavements, and road safety are appropriate for a road in this location, and for the volume of traffic that is projected to use it.

B. Economic and Financial

27. **Economic viability.** The economic evaluation of the project was undertaken using the highway development and management model, and following ADB guidelines.¹³ For the purpose of the economic analysis, the with-project scenario assumed the improvement of the 33.2 km Dushanbe–Chashmasoron road section. Without the project, the road is expected to deteriorate to an average IRI value of 16 within 15 years, rendering it unmaintainable. Future traffic was estimated based on classified traffic counts conducted in 2016, and available gross domestic product growth forecasts. The project is economically viable with an estimated economic internal rate of return of 23.5%, with a net present value of \$90 million at a 12.0% discount rate. The principal quantifiable benefits are reduced vehicle operating costs, reduced travel time, and reduced maintenance costs. Sensitivity tests confirmed that the economic viability of the project is robust against project cost increases of up to 187%, and decreases in vehicle operating costs savings of up to 71%.

28. **Financial sustainability.** The project is non-revenue generating. The design of the project road pavement and structures has been carefully developed with a view to ensuring the road's long-term sustainability. The project will initiate the development of a tailored road asset management system in close coordination with other development partners (e.g., the European Bank for Reconstruction and Development, Japan International Cooperation Agency, and the World Bank), all of which have operations that involve some forms of operation and maintenance. The government is committed to maintaining the project road and facilities at the required standard as reflected in the financing agreement. The financial analysis concluded that MOT has sufficient financial capacity, within the government's budgetary procedures, to meet recurrent expenditures to operate and maintain the project road in a sustainable manner.

C. Governance

29. **Financial management.** The financial management assessment (FMA) was undertaken in accordance with ADB guidelines regarding project financial management (footnote 13) and financial due diligence.¹⁴ The FMA considered the PIURR's capacity with regard to funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. The MOT and PIURR will maintain

¹³ Economic and Financial Analysis (accessible from the list of linked documents in Appendix 2); and ADB. 2005. *Guidelines for the Financial Management and Analysis of Projects*. Manila

¹⁴ ADB. 2009. *Financial Due Diligence: A Methodology Note*. Manila.

adequate and separate project records and accounts, which will be audited annually by an independent auditor. The FMA concluded that the overall financial management risk of the implementing agency is substantial.

30. **Procurement.** 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-supported operations in Tajikistan. A procurement risk assessment was undertaken and considered the PIURR's capacity with regard to organization and staffing, information management, procurement practices, complaints and dispute resolution mechanisms, and accountability measures. The assessment concluded that the overall procurement management risk of the implementing agency is low to moderate.

31. The PMCSC team includes an international financial management specialist, a national financial management specialist, and an international procurement specialist, who will assist the PIURR in implementing key actions and measures to address the deficiencies identified in the FMA and procurement risk assessment.

32. ADB's Integrity Principles and Guidelines¹⁵ and ADB's Anticorruption Policy (1998, as amended to date) were 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 11).

D. Poverty and Social

33. The project will directly benefit residents in Dushanbe and 19 villages located along the project road by improving access to jobs, markets, and public services while reducing the likelihood and severity of road collisions. The project will also enhance the reliability and efficiency of power solutions along the project road by introducing solar-based street lighting and backup systems for communities living adjacent to the project road. Socioeconomic surveys were carried out for project preparation and a summary poverty reduction and social strategy was prepared.¹⁶

34. The gender categorization of the project is *some gender elements*. The project design will address some of the factors that inhibit female mobility by increasing safety features (road signs and street lighting), enhancing connectivity of villages (pedestrian crossings and livestock underpasses), constructing bus stops, improving rest areas and road bazaars, and promoting confidence in the new road configuration through road safety-awareness training and workshops. The MOT and PIURR will take all necessary actions to encourage women living in the project area to participate in planning and implementing project activities following the principles of the ADB Policy on Gender and Development (1998).

E. Safeguards

35. **Resettlement.** The project is classified category B for involuntary resettlement impacts. Due to the linear design and limited number of agricultural plots located along the project road, the impacts will not be significant. The census carried out during project preparation identified approximately 74 affected households—including private agriculture plots, owners and users of land and buildings, business owners, renters, and employees—with 609 household members

¹⁵ ADB. 2015. *Integrity Principles and Guidelines*. Manila.

¹⁶ Summary Poverty Reduction and Social Strategy (accessible from the list of linked documents in Appendix 2).

affected. Only six land plots will lose more than 10% of their area. One residential building and four main business buildings will be permanently impacted. A land acquisition and resettlement plan (LARP) has been prepared to mitigate and address all the associated losses in accordance with the ADB Safeguard Policy Statement (2009) and relevant national legislation.¹⁷ The LARP was disclosed on the ADB website in August 2016. Consultations with the project stakeholders and displaced persons were undertaken in the course of LARP preparation, and will continue throughout implementation. If modification of the LARP is required, or additional land requirement or involuntary resettlement impacts identified, the LARP will be updated in accordance with applicable laws, and ADB approval obtained prior to any further implementation. All displaced people will receive compensation in accordance with the LARP provisions. The land will be made free of encumbrances in sections prior to commencement of construction. A grievance redress mechanism is in place in accordance with the LARP to assist affected persons in resolving grievances and complaints. The MOT will submit semiannual safeguards monitoring reports to ADB for review and disclosure.

36. **Environment.** The project is classified category B for environmental impacts. An initial environmental examination and an environmental management plan (EMP) have been prepared for the project and were disclosed on the ADB website in August 2016, in accordance with the ADB Safeguard Policy Statement.¹⁸ Public consultations were conducted during initial environmental examination preparation, and involved people from roadside villages, nongovernment organizations, and other project stakeholders. The environmental assessment established that the project will have site-specific environmental impacts related to air and water pollution, noise and vibration, soil erosion, loss of roadside trees, relocation of utilities, and traffic disruption during the construction stage. Additionally, it was found that the project could result in split communities, disruption of farming patterns, and loss of access to roadside businesses during operation. Adequate mitigation measures are included in, and will be implemented through, the EMP. The project design incorporates measures for preserving community cohesion such as improved road crossings, access to public facilities, and access of agricultural machinery to fields and livestock to pastures. The cost for implementing the EMP will be financed by the project through the civil works contract (mitigation measures) and the PMCSC's contract (environmental monitoring).

37. **Indigenous peoples.** There are no indigenous peoples, as defined in the ADB Safeguard Policy Statement, in the project area, and thus the project is classified category C for indigenous peoples impacts.

F. Risks and Mitigating Measures

38. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.¹⁹ The project risks are considered manageable through the prescribed mitigating measures. Integrated benefits and impacts are expected to outweigh the costs.

¹⁷ Resettlement plan (accessible from the list of linked documents in Appendix 2).

¹⁸ Initial Environmental Examination (accessible from the list of linked documents in Appendix 2).

¹⁹ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
Inadequate financial monitoring and reporting systems	The PMCSC team includes an international and a national financial management specialist who will support the PIURR in reviewing and strengthening its financial reporting and monitoring system by providing adequate tools and on-the-job training during project implementation.
Insufficient allocation of funds to maintain the project road and facilities	The government and ADB have agreed on a covenant to ensure that the project road and facilities will receive timely and adequate maintenance. A road asset management system will be progressively developed to assist the Ministry of Transport in prioritizing its maintenance and financing programs.
Inadequate attention given to road safety on the project road	The government and ADB have agreed on a covenant to ensure that recommendations identified in project road safety audits are effectively implemented by the works contractor and monitored by the PIURR with PMCSC assistance. Guidelines on safe arterial roads will be developed to foster progressive design practices and enable replication at the sector level.

ADB = Asian Development Bank, PIURR = Project Implementation Unit for Roads Rehabilitation, PMCSC = project management and contract supervision consultant.

Source: Asian Development Bank.

IV. ASSURANCES AND CONDITIONS

39. The government and the MOT 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 the financing and grant documents. The government and the MOT have agreed with ADB on certain covenants for the project, which are set forth in the financing agreement.

40. Effectiveness of the ADB loan and grant will be conditional upon the effectiveness of the OFID loan and disbursement of the loan and grant proceeds for civil works 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

41. I am satisfied that the proposed loan and grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and, acting in the absence of the President, under the provisions of Article 35.1 of the Articles of Agreement of ADB, I recommend that the Board approve

- (i) the loan in various currencies equivalent to SDR35,289,000 to the Republic of Tajikistan for the Central Asia Regional Economic Cooperation Corridors 2, 5, and 6 (Dushanbe–Kurgonteppa) Road Project, from ADB's Special Funds resources, with an interest charge at the rate of 1.0% per annum during the grace period and 1.5% per annum thereafter; for a term of 32 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 financing agreement presented to the Board; and
- (ii) the grant not exceeding \$15,800,000 to the Republic of Tajikistan, from ADB's Special Funds resources, for the Central Asia Regional Economic Cooperation Corridors 2, 5, and 6 (Dushanbe–Kurgonteppa) Road Project, on terms and conditions that are substantially in accordance with those set forth in the draft financing agreement presented to the Board.

Stephen P. Groff
Vice-President

DESIGN AND MONITORING FRAMEWORK

Impacts the Project is Aligned With			
(i) Strategic pillar on promotion of economic growth of the Tajikistan National Development Strategy ^a and			
(ii) CAREC program's strategic goal of establishing competitive corridors across the CAREC region ^b			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Outcome Improved efficiency and safer movement of goods and people on selected sections of the Dushanbe–Kurgonteppa road	By 2022: a. Average daily vehicle-km reach 401,000 in the first full year of operation of the project road (2015 baseline: 306,000) b. Crash rate ^c per 100,000 vehicle-km of travel on the project road is 7.3 or less (2015 baseline: 7.3)	a. Annual project progress reports from MOT and PMCSC b. Annual traffic accident reports from the Traffic Police Department	Insufficient allocation of funds to maintain the project road and facilities Inadequate attention given to road safety on the project road
Outputs 1. Improved road conditions, facilities, and safety along, and in the vicinity of the project road 2. Strengthened MOT institutional capacity in terms of financial management, road safety, and road asset management	By 2021: 1a. About 33 km of road designed to a 100 km/h standard with an average international roughness index of less than 2 m/km (2016 baseline: 6 m/km) 1b. Adequate road safety features ^d installed and functional on the project road (2016 baseline: Preconstruction road safety audit) 1c. At least 600 households ^e in the vicinity of the project road connected to solar power backup solutions (2016 baseline: 0) By 2020: 2a. Guidelines on safe arterial roads design developed and disseminated (2016 baseline: Not developed) 2b. RAMS framework developed and disseminated (2016 baseline: Not developed)	1a. Project progress reports and PCR from MOT and PMCSC 1b. Road safety audit reports and PCR from MOT and PMCSC 1c. Project progress reports and PCR from MOT and PMCSC 2a–2c. Project progress reports and PCR from MOT and PMCSC	Inadequate financial monitoring and reporting systems

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
3. Completed procurement readiness for the next road section to be improved	<p>2c. Financial management system and procedures developed and PIURR staff trained (2016 baseline: Not developed)</p> <p>By 2018: 3. Contracts for works, goods and services awarded (2016 baseline: 0)</p>	3. Project progress reports and PCR from MOT and PMCSC	
<p>Key Activities with Milestones</p> <p>1. Improved road conditions, facilities, and safety along, and in the vicinity of, the project road</p> <p>1.1 Award PMCSC contract by Q1 2017 and complete by Q2 2021.</p> <p>1.2 Award civil works contracts by Q1 2017 and complete by Q2 2021.</p> <p>1.3 Complete road safety audits by Q3 2017 (in-construction) and by Q2 2020 (post-construction).</p> <p>1.4 Award contract for supply of goods by Q2 2018 and complete by Q2 2021.</p> <p>2. Strengthened institutional capacity of MOT in terms of financial management, road safety, and road asset management</p> <p>2.1 Develop and disseminate guidelines on safe arterial roads design by Q2 2020.</p> <p>2.2 Develop and disseminate RAMS framework by Q2 2020.</p> <p>2.3 Develop financial management system and procedures and train PIURR staff by Q4 2020.</p> <p>3. Completed procurement readiness for the next road section to be improved</p> <p>3.1 Develop bidding documents by Q2 2017.</p> <p>3.2 Procure contracts by Q2 2018.</p>			
<p>Inputs</p> <p>ADB (Asian Development Fund): \$65.2 million equivalent, comprising \$49.4 million (loan) and \$15.8 million (grant)</p> <p>Clean Energy Fund under the Clean Energy Financing Partnership Facility: \$2.0 million</p> <p>OPEC Fund for International Development: \$12.0 million</p> <p>Government: \$17.2 million</p>			
<p>Assumptions for Partner Financing</p> <p>Not applicable</p>			

ADB = Asian Development Bank, CAREC = Central Asia Regional Economic Cooperation, h = hour, km = kilometer, m = meter, MOT = Ministry of Transport, PIURR = Project Implementation Unit for Roads Rehabilitation, PMCSC = project management and contract supervision consultant, PCR = project completion report, Q = quarter, RAMS = road asset management system.

^a Government of Tajikistan. 2007. *National Development Strategy of the Republic of Tajikistan for the period to 2015*. Dushanbe.

^b ADB. 2014. *CAREC Transport and Trade Facilitation Strategy, 2020*. Manila.

^c Data to be sex-disaggregated.

^d Includes provision of road signs, pedestrian crossings, road lighting, livestock underpasses, bus stops, and improvement of rest areas and road bazaars.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=49042-004-3>

1. Financing Agreement
2. Externally Financed Grant Agreement
3. Sector Assessment (Summary): Transport (Road Transport [Nonurban])
4. Project Administration Manual
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Economic and Financial Analysis
8. Country Economic Indicators
9. Summary Poverty Reduction and Social Strategy
10. Initial Environmental Examination
11. Resettlement Plan
12. Risk Assessment and Risk Management Plan

Supplementary Document

13. Project Climate Risk Assessment and Management Report