



# Report and Recommendation of the President to the Board of Directors

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Project Number: 48401-007  
September 2016

## Proposed Loan and Grant Kyrgyz Republic: Central Asia Regional Economic Cooperation Corridors 1 and 3 Connector Road Project

This document is being disclosed to the public prior to its consideration by ADB's Board of Directors in accordance with ADB's Public Communications Policy 2011.

Asian Development Bank

## **CURRENCY EQUIVALENTS**

(as of 31 July 2016)

Currency unit	–	som (Som)
Som1.00	=	\$0.01470
\$1.00	=	Som67.9925

## **ABBREVIATIONS**

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
CAREC	–	Central Asia Regional Economic Cooperation
EDB	–	Eurasian Development Bank
EIRR	–	economic internal rate of return
IDB	–	Islamic Development Bank
IEE	–	initial environmental examination
JICA	–	Japan International Cooperation Agency
km	–	kilometer
Km	–	distance marker
LARP	–	land acquisition and resettlement plan
m	–	meter
MOTR	–	Ministry of Transport and Roads
PAM	–	project administration manual
PDA	–	project design advance
PRC	–	People's Republic of China
RAMS	–	road asset management system
SDR	–	special drawing right
SFD	–	Saudi Fund for Development

## **NOTE**

In this report, "\$" refers to US dollars.

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## PROJECT AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number:</b> 48401-007	
<b>Project Name</b>	Central Asia Regional Economic Cooperation Corridors 1 and 3 Connector Road Project	<b>Department /Division</b>	CWRD/CWTC
<b>Country Borrower</b>	Kyrgyz Republic Kyrgyz Republic	<b>Executing Agency</b>	Ministry of Transport and Roads
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ <b>Transport</b>	Road transport (non-urban)		95.11
		<b>Total</b>	<b>95.11</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Adaptation (\$ million)	3.00
Regional integration (RCI)	Pillar 1: Cross-border infrastructure	Climate Change impact on the Project	Medium
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
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)	Civil society organizations Implementation International finance institutions (IFI)		
<b>5. Poverty Targeting</b>		<b>Location Impact</b>	
Project directly targets poverty	No	Regional	High
<b>6. Risk Categorization:</b>	Low		
<b>7. Safeguard Categorization</b>	Environment: B Involuntary Resettlement: B Indigenous Peoples: C		
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>95.11</b>	
Sovereign Project grant: Asian Development Fund		36.72	
Sovereign Project loan: Asian Development Fund		58.39	
<b>Cofinancing</b>		<b>117.00</b>	
Eurasian Development Bank - Loan		85.00	
Islamic Development Bank - Loan		12.00	
Saudi Fund for Development - Loan		20.00	
<b>Counterpart</b>		<b>48.26</b>	
Government		48.26	
<b>Total</b>		<b>260.37</b>	
<b>9. Effective Development Cooperation</b>			
Use of country procurement systems		No	
Use of country public financial management systems		Yes	

72°00'E

77°00'E

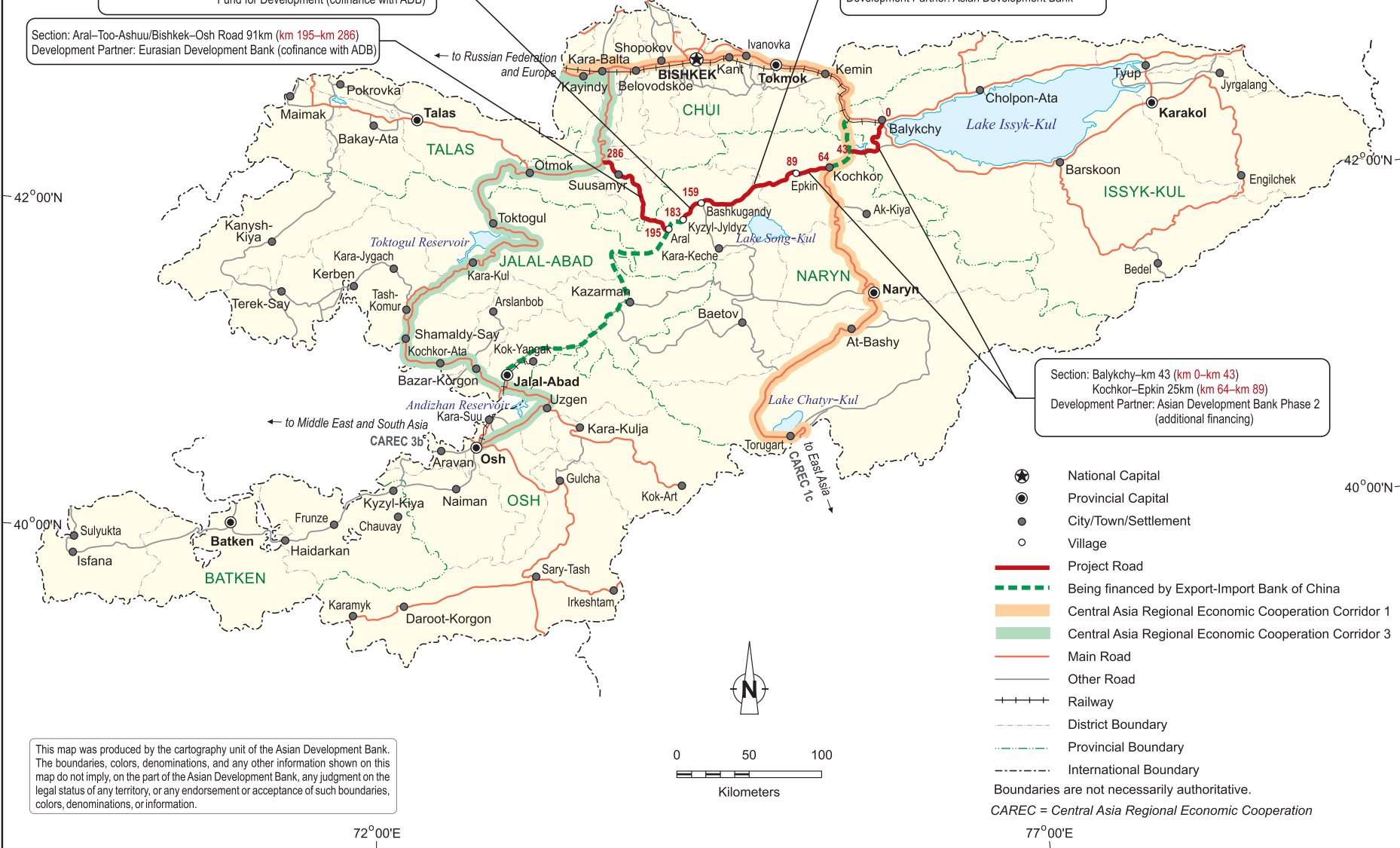
# KYRGYZ REPUBLIC CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDORS 1 AND 3 CONNECTOR ROAD PROJECT

Section: Bashkugandy-Kyzyl-Jyldyz 24km (km 159–km 183)  
Development Partner: Islamic Development Bank and the Saudi Fund for Development (cofinance with ADB)

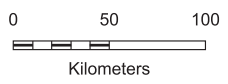
Section: Epkin-Bashkugandy 70km (km 89–km 159)  
Development Partner: Asian Development Bank

Section: Aral-Too-Ashuu/Bishkek-Osh Road 91km (km 195–km 286)  
Development Partner: Eurasian Development Bank (cofinance with ADB)

Section: Balykchy–km 43 (km 0–km 43)  
Kochkor–Epkin 25km (km 64–km 89)  
Development Partner: Asian Development Bank Phase 2 (additional financing)



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
  - Provincial Capital
  - City/Town/Settlement
  - Village
  - Project Road
  - Being financed by Export-Import Bank of China
  - Central Asia Regional Economic Cooperation Corridor 1
  - Central Asia Regional Economic Cooperation Corridor 3
  - Main Road
  - Other Road
  - Railway
  - District Boundary
  - Provincial Boundary
  - International Boundary
- Boundaries are not necessarily authoritative.  
CAREC = Central Asia Regional Economic Cooperation

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## 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 Kyrgyz Republic for the Central Asia Regional Economic Cooperation Corridors 1 and 3 Connector Road Project.<sup>1</sup>

2. The project will connect two major Central Asia Regional Economic Cooperation (CAREC) regional corridors by rehabilitating a crucial connector road, part of the North–South Alternate Corridor, which is a priority in the National Sustainable Development Strategy.<sup>2</sup> It will (i) improve connectivity and mobility, (ii) link economically underprivileged regions with economic hubs, and (iii) strengthen institutional capacity by introducing and implementing a road asset management system (RAMS) and a project implementation unit administrative manual and procedure.<sup>3</sup>

## II. THE PROJECT

### A. Rationale

3. The Kyrgyz Republic is a mountainous, landlocked country surrounded by the People's Republic of China (PRC), Kazakhstan, Tajikistan, and Uzbekistan. Despite its strategic location connecting the PRC with the rest of Central Asia, the country's 2015 per capita gross domestic product of \$1,094 was the second lowest among the countries that form the Commonwealth of Independent States. About 30.6% of its population of 6 million people were living below the national poverty line in 2014.<sup>4</sup> The Kyrgyz Republic has limited resources with which to meet its goals of sustainable growth and reducing persistent poverty. Poverty and economic disparities contributed to popular unrest in the recent past and remain the greatest challenges faced the Government of the Kyrgyz Republic.

4. Road transport is the dominant means of transport in the Kyrgyz Republic, accounting for about 95% of cargo and 96% of passenger traffic in 2015.<sup>5</sup> An efficient transport sector is, therefore, essential for the development of domestic and international trade and poverty reduction. The country's transport network comprises approximately 35,000 kilometers (km) of roads. The Ministry of Transport and Roads (MOTR)<sup>6</sup> is the lead agency for transport policy, regulation, planning, and development. It manages 60 work units responsible for the construction, repair, and maintenance of 4,163 km of international roads, 5,678 km of national roads, and 8,969 km of provincial roads. The total maintenance budget in 2015 was Som1.8 billion. The government maintains separate road corridor management departments for the Bishkek–Osh and Bishkek–Torugart roads due to their strategic importance, and has prioritized the maintenance of these international roads.<sup>7</sup>

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<sup>1</sup> The design and monitoring framework is in Appendix 1.

<sup>2</sup> Government of the Kyrgyz Republic. 2013. *National Council for Sustainable Development of the Kyrgyz Republic, National Sustainable Development Strategy for the Kyrgyz Republic, 2013–2017*. Bishkek.

<sup>3</sup> The Asian Development Bank (ADB) provided project preparatory technical assistance for Preparing the CAREC Corridors 1 and 3 Connector Road Project.

<sup>4</sup> ADB. 2016. *Basic Statistics*. Manila.

<sup>5</sup> National Statistical Committee of the Kyrgyz Republic. 2015. *Transport and Communications Statistics*. Bishkek.

<sup>6</sup> On 29 June 2016, the President of the Kyrgyz Republic renamed the Ministry of Transport and Communications the MOTR following the Parliament's approval with regard to the restructuring of the government. The MOTR's functions will remain the same as before, but communications functions will now fall under the State Committee of Information Technology and Communications.

<sup>7</sup> MOTR. 2016. *The Road Sector Strategy 2016–2025*. Bishkek.

5. The Kyrgyz Republic's key national and regional road network comprises (i) two north–south international corridors in the west and east, and (ii) one east–west international corridors in the north (see map). To ensure the nation's balanced development, it is urgently necessary to address the following network planning issues: (i) low density of the road and transport network, especially in the country's center; and (ii) low access from national roads to local city centers and international highways, especially the north–south international highways in the west and east. These issues seriously constrain transport logistics and inclusive economic growth.

6. CAREC Corridor 1 connects the Russian Federation and Europe to PRC; it is the only north–south trunk road providing access of central Kyrgyz Republic to the rest of the country and beyond. Similarly, CAREC Corridor 3 connects the Russian Federation and Europe to the Middle East and South Asia; it is the only direct link between the southern and northern parts of the country, linking two major economic and agricultural hubs, the capital city of Bishkek and the second largest city of the country, Osh. Joining these two CAREC corridors will link the southern regions (Batken, Jalal-Abad, and Osh) with the northern regions (Chui, Issyk-Kul, Naryn, and Talas) through a faster and safer alternative route, and facilitate further access to international markets.<sup>8</sup>

7. The Kyrgyz Republic's road network is one of its most valuable public assets. To maintain this network systematically, efficiently, and effectively, it is necessary to (i) strengthen maintenance financing, (ii) improve road data collection and management, and (iii) optimize road maintenance works. To this end, the project will introduce an appropriate RAMS to optimize the allocation of resources for the management, operation, preservation, and enhancement of road infrastructure. The RAMS will initially only cover part of the road network to allow the MOTR to gain experience. The system will integrate related pavement management system work initiated by the World Bank,<sup>9</sup> and a bridge and tunnel management system introduced by the Japan International Cooperation Agency (JICA).<sup>10</sup>

8. The rehabilitation of this connector road is consistent with the government's priority of providing an alternate means of accessing national and regional connectivity, as stated in the National Strategy of Sustainable Development, 2013–2017 (footnote 2). It is also aligned with the Asian Development Bank (ADB) country partnership strategy, 2013–2017 for the Kyrgyz Republic, and<sup>11</sup> Midterm Review of Strategy 2020;<sup>12</sup> and is included in ADB's country operations business plan, 2016–2018 for the Kyrgyz Republic.<sup>13</sup> ADB provided the project design advance (PDA) of up to \$3 million in 2015 for preparing detailed engineering designs.<sup>14</sup> The related works contracts will start tendering in October 2016, and will be awarded when the proposed loan and grant are declared effective.

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<sup>8</sup> Sector Assessment (Summary): Transport (accessible from the list of linked documents in Appendix 2).

<sup>9</sup> World Bank. 2014. *Implementing a Road Asset Management System (RAMS). User Manual for Pilot Road Database of MOTC. National Road Rehabilitation Project*. Washington, DC.

<sup>10</sup> JICA. 2016. *Project Completion Report: The Project for Capacity Development for Maintenance Management of Bridges and Tunnels in the Kyrgyz Republic*. Tokyo.

<sup>11</sup> ADB. 2013. *Country Partnership Strategy: Kyrgyz Republic, 2013–2017*. Manila.

<sup>12</sup> ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

<sup>13</sup> ADB. 2015. *Country Operations Business Plan: Kyrgyz Republic, 2016–2018*. Manila.

<sup>14</sup> ADB. 2015. *Project Design Advance: Central Asia Regional Economic Cooperation Corridors 1 and 3 Connector Road Project in Kyrgyz Republic*. Manila (Grant 6002-KGZ[SF]).



## B. Impact and Outcome

9. The project impact, which is aligned with the National Sustainable Development Strategy, 2013–2017, will be enhanced regional and national connectivity. The outcome will be improved efficiency and safer movement of goods and people.

## C. Outputs

10. The outputs to be financed by ADB and the government are as follows:

- (i) rehabilitated road from Epkin village to Bashkugandy village 70 km long (distance marker [Km] 89–Km 159) that incorporates specific features for road safety and climate change adaptation; and
- (ii) strengthened institutional capacity, including consulting services for detailed design,<sup>15</sup> construction supervision, project management, project auditing, safeguards support, the preparation and implementation of the RAMS,<sup>16</sup> and a review of pilot performance-based maintenance contracting.

11. In addition, (i) 91 km of road from Aral village to CAREC Corridor 3 via the Suusamyry valley (Km 195–Km 286) will be rehabilitated and cofinanced by the Eurasian Development Bank (EDB) and the government; and (ii) 24 km of road from Bashkugandy village to Jyldyz village (Km 159–Km 183) will be rehabilitated and cofinanced by the Islamic Development Bank (IDB), the Saudi Fund for Development (SFD), and the government. ADB will not administer any of the cofinancing funds. The financing partners will implement and administer their assigned components parallel to the ADB-financed project using their own policies, procedures, and guidelines. The combined efforts of the various international financial institutions will improve the network overall, not just a single corridor.

## D. Investment and Financing Plans

12. The project is estimated to cost approximately \$114.35 million, including taxes and duties, to be financed by ADB and the government. The project investment plan is in Table 1.<sup>17</sup>

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<sup>15</sup> ADB approved a \$3 million Asian Development Fund (ADF) grant as a PDA for the CAREC Corridors 1 and 3 Connector Road Project on 2 June 2015 to finance detailed design.

<sup>16</sup> Road Asset Management System Review (accessible from the list of linked documents in Appendix 2).

<sup>17</sup> Detailed cost estimates by ADB and the government can be found in section 4 of the Project Administration Manual (accessible from the list of linked documents in Appendix 2).

**Table 1: Project Investment Plan**  
(\$ million)

Item	Amount
<b>A. Base Cost<sup>a</sup></b>	
1. Rehabilitation of the Epkin–Bashkugandy road section (70 kilometers)	71.89
2. Institutional strengthening <sup>b</sup>	8.60
3. Project management support <sup>c</sup>	2.16
4. Resettlement expenses for the Epkin–Bashkugandy road section <sup>d</sup>	0.10
5. Project expertise and approval (State Architectural Agency)	0.44
6. Taxes and duties <sup>e</sup>	16.75
<b>Subtotal (A)</b>	<b>99.94</b>
<b>B. Contingencies<sup>f</sup></b>	<b>12.37</b>
<b>C. Financing Charges During Implementation<sup>g</sup></b>	<b>2.04</b>
<b>Total (A+B+C)</b>	<b>114.35</b>

<sup>a</sup> In mid-2016 prices.

<sup>b</sup> Includes a supervision firm, a road asset maintenance system firm, performance-based maintenance contract consultants, financial audit firm, insurance, consulting services, income tax on nonresidents, and employer's social fund contributions for individual consultants (3%); as well as a \$3 million project design advance to prepare detailed designs of projects to be financed by the Asian Development Bank (ADB). ADB. 2015. *Project Design Advance: Central Asia Regional Economic Cooperation Corridors 1 and 3 Connector Road Project in Kyrgyz Republic*. Manila (Grant 6002-KGZ[SF]).

<sup>c</sup> Includes project implementation unit staff salaries, plus employer's social fund contributions (17.25%), office operating expenses, bank charges, local transport, and insurance. ADB will finance taxes and duties for project management support, provided that (i) the amount is within the reasonable threshold identified during the country partnership strategy preparation process, (ii) the amount will not represent an excessive share of the project investment plan, (iii) the taxes and duties apply only to ADB-financed expenditures, and (iv) the financing of the taxes and duties is material and relevant to the project's success.

<sup>d</sup> Resettlement expenses will be financed from the Asian Development Fund grant.

<sup>e</sup> Includes taxes and duties of about \$16.75 million to be financed from government resources.

<sup>f</sup> Physical contingencies were computed at 8% for civil works and consulting services. Price contingencies were computed according to ADB's cost escalation factors, including a provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>g</sup> Includes interest charges financed from the loan and calculated at 1% per year.

Source: ADB estimates.

13. The government has requested (i) a loan in various currencies equivalent to SDR41,905,000, and (ii) a grant not exceeding \$36.72 million, both from ADB's Special Funds resources to help finance the project.<sup>18</sup> The loan will have a 32-year term, including a grace period of 8 years, an interest rate of 1.0% per annum during the grace period and 1.5% per annum thereafter, and such other terms and conditions as are set forth in the draft financing agreement. The government will provide \$19.24 million in counterpart funding to cover taxes and duties related to all civil works, goods, and consulting services. The financing plan is in Table 2. On the effective date of the proposed financing agreement, the amount of the advance disbursed from the PDA grant account (para. 8) by such date will be cancelled from the proposed grant amount, and the PDA grant account will be closed.

<sup>18</sup> A country's eligibility for ADF grants under the revised grant framework is determined by its risk of debt distress. The latest debt sustainability analysis determined that the Kyrgyz Republic had a moderate risk of debt distress and was, therefore, eligible to receive 50% of its ADF allocation as grants.

**Table 2: Financing Plan**

<b>Source</b>	<b>Amount</b> (\$ million)	<b>Share of Total</b> (%)
Asian Development Bank		
Special Funds resources (grant) <sup>a</sup>	36.72	32.0
Special Funds resources (loan)	58.39	51.0
Government of the Kyrgyz Republic	19.24	17.0
<b>Total</b>	<b>114.35</b>	<b>100.0</b>

<sup>a</sup> Includes a \$3 million project design advance approved in 2015.

Source: Asian Development Bank estimates.

14. It is estimated that the EDB-financed section will comprise \$85.00 million from the EDB and \$22.02 million from the government; and that the IDB- and SFD-financed section will comprise \$12 million from the IDB, \$20 million from the SFD, and \$7 million from the government. The combined investment of \$260.37 million will enable network-wide improvements.

15. Due to limited funding, it was not possible to finance all of the sections studied under the project preparatory technical assistance in 2016. Two road sections totaling 67 km (Balykchy village–Km 43 and Kochkor village–Epkin village) will be considered for additional ADB financing in 2017.

## **E. Implementation Arrangements**

16. The MOTR will be the executing agency. It has implemented all development partner-financed road projects since 1995, and has accumulated considerable experience. The MOTR's Investment Projects Implementation Group will be responsible for project implementation activities.<sup>19</sup> Construction supervision consultants will be engaged as the engineer for the construction contract. RAMS consultants will be contracted separately to design and implement the RAMS. The EDB will make separate arrangements to finance the implementation of the EDB-financed section, while the IDB and SFD have their own separate project implementation unit.

17. The implementation arrangements for the ADB-financed section are summarized in Table 3 and described in detail in the project administration manual (PAM).<sup>20</sup>

**Table 3: Implementation Arrangements**  
(ADB-financed Epkin village–Bashkugandy village road section only)

<b>Aspects</b>	<b>Arrangements</b>
Implementation period	31 January 2017–31 July 2021
Estimated completion date	31 January 2022 (loan and grant closing date)
<b>Management</b>	
(i) Oversight body	Ministry of Finance, deputy minister (chair) Head of Public Investment Program, Technical Assistance, and Foreign Aid Department (member) Head of Investment Projects Implementation Division (member)
(ii) Executing agency	Ministry of Transport and Roads

<sup>19</sup> The Investment Projects Implementation Group is funded by multiple development partners such as ADB, the China Exim Bank, the World Bank, and the European Bank for Reconstruction and Development.

<sup>20</sup> Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Aspects	Arrangements		
(iii) Key implementing agencies	Investment project implementation group		
(iv) Implementation unit	Bishkek, 40 staff		
Procurement	International competitive bidding	1 civil works contract	\$72.00 million
Consulting services	Quality- and cost-based selection	1 construction supervision (301 person-months)	\$3.26 million
		1 road asset management (191 person-months)	\$2.41 million
	Least-cost selection	Financial audit	\$0.10 million
	Individual consultants	Project management (1,080 person-months)	\$1.57 million
2 performance-based maintenance contact specialists (18 person-months)		\$0.34 million	
Advance contracting	Construction supervision consultant and road asset maintenance system services. Any proposal of advance contracting will not constitute a commitment by the Asian Development Bank (ADB) to finance the project.		
Disbursement	The loan and/or grant proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2015, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

Source: ADB.

18. To continue the preparation of the remaining detailed engineering designs, after the PDA account is closed, the funding source of the consultants engaged for this purpose (paras. 8 and 13) will be shifted from the PDA to the proposed grant.

### III. DUE DILIGENCE

#### A. Technical

19. Preliminary engineering designs have been prepared based on topographical surveys and geotechnical investigations, as well as pavement, drainage structure, and bridge condition surveys. International standards were applied to compensate for any shortcomings in national standards. The ADB-financed road section (Epkín–Bashkugandy) is a two-lane road with a pavement width of 6–8 meters (m), and a mainly asphalt concrete surface in poor condition. About 70% of the paved areas are in an unsatisfactory condition with corrugations, cracks, and edge breaks, and some sections have already deteriorated to gravel. The average roughness index is 8.33 m/km.

20. The project road will be upgraded to a category II standard, with two paved asphalt travel lanes 3.75 m wide, paved shoulders 0.75 m wide, and unpaved shoulders 3.00 m wide. The town passages in the Epkín–Bashkugandy road, which are 5.3 km long, will meet the Kyrgyz Republic's design standard for settlement roads. In addition, six bridges will be replaced and two bridges repaired and widened, with a total bridge length of 123.8 m between the two villages. Road safety enhancements, such as guardrails, road signs, sidewalks, pedestrian crossings, pavement markings, and other safety devices, will be provided. The project design incorporates feasible climate change adaptation and disaster risks measures.

21. RAMS activities recently conducted in the country were assessed. The proposed RAMS will build upon a bridge and tunnel system developed with the support of JICA, and a basic pavement management system developed by the World Bank. The RAMS will be designed and implemented component-by-component, with the support of strong institutional development, training, and data collection. The first road network covered by the RAMS will include the CAREC road network in the Kyrgyz Republic. The aim of this approach is to demonstrate the system's benefits with a small-scale pilot, and then expand it further once the system is set up.

## **B. Economic and Financial**

22. **Economic assessment.** The project will lower transport costs, increase travel speeds, and improve road safety outcomes for international and national traffic on the CAREC Transport Corridors 1 and 3 Connector Road. The project's economic evaluation was undertaken using the highway development and management model<sup>21</sup> and following ADB's Guidelines for the Economic Analysis of Projects.<sup>22</sup> The road sections to be financed by ADB, the EDB, and the IDB and SFD were all found to be economically viable, having a combined economic internal rate of return (EIRR) of 24.9%. The estimated EIRR for the ADB-financed Epkin–Bashkugandy road section is 28.5%. The high EIRR reflects high traffic volumes and the poor state of the roads without the project. Sensitivity tests confirmed that the project would remain viable even if the envisaged project costs increase or benefits decrease.

23. **Financial sustainability.** The road maintenance budget allocation in 2016 was assessed as sufficient to meet the maintenance needs of the international roads maintained by the MOTR; the government is committed to maintaining a road maintenance budget at a similar level. It is thus reasonable to expect that funds will be available to meet the project road's maintenance costs. Once the project road is completed, the MOTR will classify it as an international corridor subject to priority operation and maintenance, and provide necessary funding from the second year of the road's operation. In addition, when the RAMS is in place, it will help the government utilize its maintenance budget better by prioritizing critical road sections.<sup>23</sup>

## **C. Governance**

24. **Institutional capacity.** ADB has helped the Kyrgyz Republic rehabilitate CAREC Corridors 1 and 3, two regional corridors important for domestic and international travel, which connect economic and population centers in the north and south of the country via its capital, Bishkek. The Investment Projects Implementation Group has been implementing ADB-funded projects since 1996, and has delivered more than 13 ADB road projects, with a total cost of more than \$468 million. The group's staff has adequate knowledge, understanding, and experience with ADB procedures to manage the project.

25. **Financial management.** The implementation group's capacity for project financial accounting is satisfactory, and it has a proven track record in ADB's disbursement procedures. Separate project records and accounts will be maintained. The project accounts and related financial statements will be audited annually in accordance with national and international auditing standards. The pre-mitigation risk rating assigned to the project is *moderate*. Project

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<sup>21</sup> World Road Association. 2002. *HDM-4 Version 2*. Paris.

<sup>22</sup> ADB. 1997. *Guidelines for the Economic Analysis of Projects*. Manila.

<sup>23</sup> Economic and Financial Analysis (accessible from the list of linked documents in Appendix 2).

sustainability has been identified as a key risk, and will be mitigated through sector reform and the design and implementation of a RAMS.

26. **Procurement.** Master bid documents were prepared during the project preparatory technical assistance stage. The recruitment of construction supervision consultants and RAMS consultants commenced in August 2016. Tendering for the civil works contracts is expected to commence in October 2016. The procurement risk assessment has been carried out. ADB will continue to train and support the MOTR procurement team and tender committee. ADB and the MOTR will conduct capacity strengthening activities with a focus on identifying conflict of interest situations and detecting collusion and other fraudulent and corrupt behaviors.

27. **Anticorruption.** ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the MOTR. The specific policy requirements and supplementary measures are described in the PAM (footnote 20).

#### D. Poverty and Social

28. The project is expected to help reduce poverty by improving the transport of goods and people as well as access to services, thereby stimulating economic activities. The project will also benefit local residents and enterprises by creating jobs during construction and reducing transport costs and travel times. Social and poverty assessments are in the Summary Poverty Reduction and Social Strategy.<sup>24</sup> The project is classified as a general intervention, with no direct poverty reduction component. It will benefit poor people in the project area by improving transport conditions and enabling better access to social services. The project design includes a matrix summarizing actions related to this objective. The civil works contract will require contractors to (i) comply with the Kyrgyz Republic's applicable labor laws and related international treaty obligations, and not use child labor; (ii) provide safe working conditions and separate sanitation facilities for male and female workers; (iii) provide equal wages to male and female workers for work of equal value; (iv) provide employment opportunities for women; (v) carry out HIV/AIDS, illicit drugs, and human trafficking prevention and awareness programs in workers' campsites; and (vi) construct toilets along the project road.

#### E. Safeguards<sup>25</sup>

29. **Environment.** The project is classified as category B under ADB's Safeguard Policy Statement (2009). Three initial environmental examination (IEE) reports, including an environmental management plan, have been prepared for each project section financed by (i) ADB, (ii) the EDB, and (iii) the IDB and SFD.<sup>26</sup> Impacts, which will be mostly related to construction work, are expected to be limited in magnitude, short-term in nature, and mitigatable. They include (i) noise, dust, vehicle emissions, and vibration (these are especially significant for settlements along the road and sensitive receptors such as schools, hospitals, mosques, cemeteries, and other culturally historic objects); (ii) impacts on water courses and rivers due to bridge rehabilitation and construction works along the rivers; (iii) impacts from the

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

<sup>25</sup> For the EDB- and IDB- and SFD-financed road sections, the social and environmental assessment and planning, safeguard documentation, consultation, and disclosure requirements were conducted to satisfy ADB's Safeguard Policy Statement. An IEE report and land acquisition and resettlement plan for the EDB- and IDB- and SFD-financed road sections were prepared and disclosed on 22 July 2016. During implementation, the EDB, IDB, and SFD shall be responsible for (i) ensuring that activities carried out in connection with their financed sections comply with their safeguard requirements, and (ii) resolving any complaints relating to these sections.

<sup>26</sup> Initial Environmental Examination (accessible from the list of linked documents in Appendix 2).

transportation of material from borrow sites; (iv) impacts of tree-cutting along the road due to site-clearance activities; (v) impacts from asphalt plants and aggregate crushers; and (vi) impacts from contractors' work camps. The impacts have been divided into design, construction, and operation phase impacts. The project will finance the cost of implementing the environmental management plan—the construction contracts will include the costs of mitigation measures, and the consulting service of the construction supervision consultants will include the cost of environmental monitoring.

30. **Resettlement.** Civil works associated with road construction and rehabilitation will entail some involuntary land acquisition and resettlement impacts, as well as some effects on livelihoods. Based on the three draft land acquisition and resettlement plans (LARPs) prepared separately for each project section, the project is categorized as category B for involuntary resettlement safeguards.<sup>27</sup> Approximately 251 affected households, comprising 940 displaced persons, will experience permanent or temporary land acquisition. Six affected households will be physically displaced, 12 affected households will be significantly impacted, and 57 affected households are deemed vulnerable. The ADB-financed section will affect only 48 households, comprising 180 displaced persons; no affected household will be physically displaced, one affected household will be significantly impacted, and 22 households will be vulnerable. The vast majority of affected households will experience minor impacts, such as the loss of trees, fences, walls, and minor structures in sections that encroach upon the road right-of-way. The LARPs prepared for each section comply with ADB's Safeguard Policy Statement, and the MOTR will be responsible for meeting ADB's safeguard requirements in the ADB-financed section.

31. **Indigenous peoples.** There are no indigenous peoples, as defined in ADB's Safeguard Policy Statement, in the project area, and the project will be classified as category C for indigenous peoples.

## F. Risks and Mitigating Measures

32. The project risks are considered manageable through the prescribed mitigating measures, and the integrated benefits and impacts are expected to outweigh the costs of mitigation. Major project risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.<sup>28</sup>

**Table 4: Summary of Risks and Mitigating Measures**

<b>Risks</b>	<b>Mitigating Measures</b>
Initial delays in project implementation	The project design advance for detailed design was approved, and the consultants mobilized in February 2016. Tendering is expected to start in October 2016. The civil works contract will be ready to be awarded by February 2017, when the loan and grant are effective.
Collusion, corruption, and cartel conduct	Extra due diligence to ensure that ADB's procurement guidelines and consulting services guidelines are met.
Counterpart funding delay	Government assurance to include counterpart funds in the annual budget.
Procurement delay	The project preparatory technical assistance consultants have prepared the master bid documents. Advanced contracting action is to be taken for consultants and civil works.
Safeguard	Training and support on ADB's Safeguard Policy Statement (2009); public

<sup>27</sup> Resettlement Plan: Land Acquisition and Resettlement Plan (accessible from the list of linked documents in Appendix 2).

<sup>28</sup> Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

<b>Risks</b>	<b>Mitigating Measures</b>
noncompliance and complaints	consultations to be held with nongovernment organizations and residents; and timely and close monitoring of all studies related to land acquisition and resettlement.
Cost overrun	Sufficient contingency allocated to ensure better cost estimates before the awarding of civil works.
Insufficient funding for maintenance	The maintenance budget will be increased annually and the regional roads prioritized. A road asset maintenance system will be designed and implemented to help the government manage its asset.

ADB = Asian Development Bank.

Source: ADB.

#### **IV. ASSURANCES**

33. The government and the MOTR 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 project administration manual and financing document.

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

#### **V. RECOMMENDATION**

35. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve

- (i) the loan in various currencies equivalent to SDR41,905,000 to the Kyrgyz Republic for the Central Asia Regional Economic Cooperation Corridors 1 and 3 Connector 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 \$36,720,000 to the Kyrgyz Republic from ADB's Special Funds resources, for the Central Asia Regional Economic Cooperation Corridors 1 and 3 Connector Road Project, on terms and conditions that are substantially in accordance with those set forth in the draft financing agreement presented to the Board.

Takehiko Nakao  
President

5 September 2016



## DESIGN AND MONITORING FRAMEWORK

<b>Impact the Project is Aligned with</b>			
Enhanced regional and national connectivity (National Sustainable Development Strategy 2013–2017) <sup>a</sup>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Risks</b>
<b>Outcome</b> Improved efficiency and safer movement of goods and people	a. Travel time between Naryn and Osh reduced by 50% (11 hours) by 2022 (2015 baseline: 22 hours) when the entire north–south corridor project is implemented  b. Daily vehicle traffic from Epkin to Bashkugandy (annual average) increased to 5,572 by 2022 (2015 baseline: 1,621)	a. MOTR report  b. MOTR report	Adjacent sections experience delays in project implementation
<b>Outputs</b> 1. Rehabilitated road from Epkin village to Bashkugandy village 70 km long (distance marker [Km] 89–Km 159)  2. Strengthened institutional capacity	1. 70 km of road rehabilitated and the pavement international roughness index reduced to 3.00 m/km by 2021 (2015 baseline: 8.33 m/km)  2a. A RAMS designed and implemented by 2020 (2015 baseline: 0)  2b. The PIU's administrative manual and procedures in place by 2020 (2015 baseline: 0)	1. MOTR and ADB project completion report  2a. ADB review missions and consultants' reports  2b. ADB review missions and consultants' reports	Cost overruns caused by unexpected price increases during construction due to implementation delay  Lack of technical expertise and funding to continue the RAMS  Lack of understanding of the new administrative process on the part of the PIU and MOTR

**Key Activities with Milestones**

1. Rehabilitated road from Epkin village to Bashkugandy village 70 km long (distance marker [Km] 89–Km 159)
  - 1.1 Recruit detailed design consultants by February 2016.
  - 1.2 Recruit supervision consultants by March 2017.
  - 1.3 Award civil works contract by March 2017.
  - 1.4 Complete civil works by July 2021.
2. Institutional capacity strengthened
  - 2.1 Recruit RAMS consultant by June 2017, and the MOTR will design and apply the RAMS in planning the key road network by June 2020.
  - 2.2 Put in place the PIU's administrative manual and procedures by June 2017.

**Inputs**

Asian Development Bank: \$36.72 million (ADF grant);<sup>b</sup> \$58.39 million equivalent (ADF loan)  
 Government of Kyrgyz Republic: \$19.24 million

**Assumptions for Partner Financing**

Eurasian Development Bank will finance the rehabilitation of 91 km road from Aral village to CAREC Corridor 3 via Suusamyр valley in the amount of \$85 million under collaborative cofinancing with the Asian Development Bank project. Similarly, the Islamic Development Bank will provide \$12 million, and the Saudi Fund for Development will provide \$20 million to rehabilitate 24 km of road from Bashkugandy village to Jyldyz village.

ADB = Asian Development Bank, ADF = Asian Development Fund, CAREC = Central Asia Regional Economic Cooperation, km = kilometer, Km = distance marker, MOTR = Ministry of Transport and Roads, PIU = project implementation unit, RAMS = road asset management system.

Note: The design and monitoring framework covers only the scope to be financed and administered by ADB.

<sup>a</sup> National Council for Sustainable Development of the Kyrgyz Republic. 2013. *National Sustainable Development Strategy for the Kyrgyz Republic, 2013–2017*. Bishkek.

<sup>b</sup> Includes the ADB-approved Asian Development Fund grant for a \$3 million project design advance to engage detailed design consultants in 2015.

Source: ADB.

**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RRPs/?id=48401-007-2>

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

**Supplementary Documents**

12. Road Asset Management System Review
13. Project Climate Risk Assessment and Management Report