

Executive Summary

1. The Reconstruction of M-32 Highway Aktobe–Karabutak–Ulgaisyn Section Project (the “Project”) will reconstruct a 234-km road in western Kazakhstan, rehabilitate the existing two lanes road and expanding it from two to four lanes. It will be financed through sovereign-backed financing totaling about USD 900 million, jointly provided by the Asian Infrastructure Investment Bank (AIIB) and the European Bank for Reconstruction and Development (EBRD), each contributing equal amounts. The Government of Kazakhstan, through the Ministry of Finance, will provide sovereign guarantee and counterpart funding of around 12 percent of the project cost. The Project will be implemented by KazAvtoZhol JSC under and administration of the Ministry of Transport.
2. Located along the Western Europe–Western China (WE–WC) corridor, the Project road is one of Kazakhstan’s busiest and most strategic highways. The Project will enhance capacity, safety, and service quality, reduce travel time and vehicle operating costs, and strengthen resilience to climate risks such as heat, salinization, and flooding. Improved connectivity and logistics efficiency are expected to boost trade competitiveness and regional economic growth.
3. The Project introduces an integrated Design-Build-Maintain (DBM) model based on the FIDIC Yellow Book (2017), consolidating design, construction, and maintenance responsibilities under a single contract. This approach promotes lifecycle asset management and reduces cost overruns and delays. Through implementation support and supervision, the Banks will help strengthen procurement and E&S management capacity within KazAvtoZhol and the Ministry of Transport.
4. Key risks relate to the complexity and novelty of the DBM modality in Kazakhstan: (i) design availability only in the first year, requiring strong management; and (ii) limited national experience, which may cause procurement delays and quality risks. Mitigation measures include: (a) prequalification of capable bidders; (b) engagement of international procurement consultants; (c) deployment of AIIB’s senior technical advisor for DBM oversight; (d) joint supervision and procurement reviews by AIIB and EBRD; and (e) application of lessons from the Karagandy–Jezkazgan Project co-financed with the World Bank.

Project No. and Name	P000923 Reconstruction of M-32 Highway Aktobe-Karabutak-Ulgaisyn Section Project		
AIB Member	Kazakhstan		
Borrower	"KazAvtoZhol" NC" JSC (QAJ)		
Guarantor	Ministry of Finance, Kazakhstan		
Project Implementation Entity	"KazAvtoZhol" NC" JSC (QAJ)		
Proposed Amount of AIB Financing (USDm)	USD450.00	Instrument type (Instrument subtype)	Loan (Sovereign Guarantee)
		Currency of financing requested	Yen
Sector (Subsector)	Transport (Roads)	E&S Category and Comments (if any)	A, EBRD ES Policies apply
Project Objective	To provide safe, efficient, and climate-resilient connectivity along the Aktobe-Karabutak-Ulgaisyn section of the M-32 Highway in Kazakhstan's Aktobe region.		
Project Description	<p>The Reconstruction of M-32 Highway Aktobe-Karabutak-Ulgaisyn Section Project (the "Project") involves the rehabilitation and upgrading of a 234-kilometer (km) road section from two to four lanes, starting from the city of Aktobe, passing through Karabutak, and ending at Ulgaisyn. The Project will also support associated supervision and provide implementation support, including capacity-building.</p> <p>The road runs through Aktobe region in western Kazakhstan and forms a key segment of the Western Europe–Western China transport corridor. It is one of the busiest transportation routes traversing Kazakhstan, connecting the country's east with the west. The Project aims to improve road conditions and capacity to accommodate growing traffic demand, with enhancements of road safety, service levels, and climate-resilient standards. In addition, it will introduce the Design-Build-Maintain (DBM) contract model and a tolling system to strengthen the road's long-term technical and financial sustainability. This Project is among the pioneers in using an integrated DBM contract model based on the Yellow Book contract format of the International Federation of Consulting Engineers (FIDIC). This integrated approach leverages private sector expertise to develop the design and long-term maintenance program upfront, ensuring alignment with specific project features and supporting a lifecycle approach to road infrastructure planning. It also aims to reduce the risk of cost overruns and implementation delays commonly associated</p>		

	<p>with conventional contract models.</p> <p>The Project's Financing will be committed in two loan tranches, through two separate loan agreements. The first tranche will finance approximately 34 percent of the total Project cost, allocated across all Project components. The first tranche of financing will focus on procuring DBM contractors and the supervision consultant, hiring the project implementation support consultant, advancing the road design, and updating the relevant ES instruments. The second tranche will finance the remaining 66 percent of the total Project cost, with a focus on construction and institutional capacity building activities.</p> <p>The Project will be jointly co-financed by AIIB and EBRD. Both banks will provide equal loan amounts under the first and second tranches in 2025 and 2026, in line with the Government of Kazakhstan's (GoK's) sovereign guarantee arrangement. GoK will contribute counterpart funding of up to 12 percent of the total Project cost across both tranches.</p>		
Implementation Period	Start Date: December 31, 2025 End Date: December 31, 2030	Expected Loan Closing Date	June 30, 2030
Co-financing type	Co-financing led by another financier	Following other Financier's E&S Policy?	
Lead financier	European Bank for Reconstruction and Development	Following other Financier's Procurement Policy?	
Financing Plan	<p>Total Project Cost: USD 1,023 million</p> <ul style="list-style-type: none"> • AIIB Financing: USD 450 million • EBRD Financing: USD 450 million • GoK Financing: USD 123 million <p>The 1st loan tranche financing for USD 345 million:</p> <ul style="list-style-type: none"> • AIIB Loan (1st tranche) USD 152 million • EBRD Loan (1st tranche) USD 152 million • GoK USD 41 million <p>The 2nd loan tranche financing for USD 678 million:</p> <ul style="list-style-type: none"> • AIIB Loan (2nd tranche) USD 298 million • EBRD Loan (2nd tranche) USD 298 million • GoK USD 82 million 		
Policy Assurance	The Vice President, Policy and Strategy, confirms an overall assurance that the proposed Bank Financing complies with the applicable Bank operational policies.		

Risk	
Key Risks	Mitigation Measures
Introducing the integrated design, build and maintenance contracts through the FIDIC Yellow Book Contract format. Design can only be available at the first year of implementation, which may lead to uncertainty and require higher capacity in project management.	<ul style="list-style-type: none"> • Advance Procurement Support Consultants have been engaged to provide direct support to QAJ in the procurement document preparation and processing. • AIIB has engaged an experienced senior technical advisor to support the team in preparation, assessment and monitoring quality of design, operational activities, implementation of critical aspects of DBM contracting and performance-based maintenance. • The experience and lessons learned from other ongoing projects AIIB involved in Kazakhstan, such as the Karagandy-Jezkazgan road improvement project co-financed with the WB, which are with the similar nature, will benefit this Project.
Lack of experience of design, build and maintenance contracts may lead to delay and unsatisfactory project quality of the project.	<ul style="list-style-type: none"> • Adopt a prequalification process to ensure a sufficient number of capable tenderers have been prequalified and invited to submit tenders. • Provide advance procurement support through the engagement of international consultants to prepare the procurement documents and administer the procurement process. • Ensure close supervision and support in procurement and contract execution of all works contracts by EBRD and AIIB through procurement prior to review and field missions. • Leverage the experiences gained and lessons learned from the Karagandy-Jezkazgan road improvement project co-financed by the World Bank.
Economic Capital (ECap) Consumption	32.73USDm 7.27%

Strategic Alignment				
Alignment with AIB's thematic priorities		Connectivity and Regional Cooperation		
Alignment with AIB's strategies		Transport Sector Strategy		
Key Outcomes	Indicator	Unit of measure	Baseline (Year)	Target (Year)
Roads	Average travel time along the section.	Minutes	224 (2024)	143 (2030)
Roads	AADT along the Aktobe-Karabutak-Ulgaisyn section (Passenger Car Unit[PCU])	Number	12398 (2024)	15914 (2030)
Roads	Road safety improvement along the Aktobe-Karabutak-Ulgaisyn section expressed as iRAP rating or equivalent	Number	1 (2024)	3 (2030)

Other Key Financing Requirements	
Conditions of Effectiveness	<ul style="list-style-type: none"> The Borrower has established a Project Implementation Unit ("PIU") to the satisfaction of the Bank; EBRD's corresponding loan tranche has been signed and has become effective.

President	Liqun Jin
Chief Investment Officer	Konstantin Limitovskiy
Director General	Xiaohong Yang
Project Team Leader	Anzheng Wei, Senior Investment Officer
Project Team Members	Julia Conrad, Associate Investment Officer Gulru Azamova, Senior Social Development Specialist Drona Ghimire, Senior Environment Specialist Yunlong Liu, Senior Procurement Specialist Liu Yang, Project Counsel Alberto Alcubilla Arribas, Senior Climate Specialist Kezia Paladina, Alternate Counsel Jingyu Gao, Economist Mengmeng He, Finance Officer Yi Geng, Financial Management Specialist Hyewon Kim, Investment Analyst Dingding Tang, Environmental Reviewer Kai Shang, Social Reviewer Yuyou Guo, Senior Project Assistant



Sovereign-backed Financings

**Approved Project Document
P000923 Kazakhstan - Reconstruction of M-32 Highway
Aktobe-Karabutak-Ulgaisyn Section Project**

Currency Equivalents

As of May 19, 2025

Currency Unit – Kazakhstani Tenge (KZT)

USD1.00 = KZT510.66

KZT1.00 = USD0.0020

Fiscal Year

January 1 – December 31

Abbreviations

AADT	Average Annual Daily Traffic
AIIB	Asian Infrastructure Investment Bank
CRA	Climate Resilience Assessment
CSC	Construction Supervision Consultant
DBM	Design-Build-Maintenance
EBRD	European Bank for Reconstruction and Development
EIRR	Economic Internal Rate of Return
ES	Environmental and Social
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
EUR	Euro
EV	Electric Vehicle
EWRP	East-West Roads Project
FM	Financial Management
GDP	Gross Domestic Product
GHG	Green House Gas
HDM	Highway Development and Maintenance
IFI	International Financial Institution
iRAP	International Road Assessment Programme
km	Kilometer
kph	Kilometer per hour
KZT	Kazakhstani Tenge
LARF	Land Acquisition and Resettlement Framework
LCP	Low-Carbon Pathways
LMP	Labor Management Plan
LMPs	Section-specific Land Management Plans
MDB	Multilateral Development Bank
MoT	Ministry of Transport of the Republic of Kazakhstan
MYRP	Multi-Year Rolling Pipeline
NDC	Nationally Determined Contribution
NPV	Net Present Value
O&M	Operations and Maintenance

OHS	Occupational Health and Safety
PAA	Paris Agreement Alignment
PIU	Project Implementation Unit
PMC	Project Management Consultant
PPM	Project-affected People's Mechanism
PT	Project Team
QAJ	"KazAvtoZhol National Company Joint Stock Company"
RAP	Resettlement Action Plan
RC	Roads Committee
SEP	Stakeholder Engagement Plan
SEZ	Special Economic Zone
SOE	State-Owned Enterprise
SPPC	State Property and Privatization Committee
SWRP	South-West Roads Project
TMA	Trust Management Agreement
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar
VOC	Vehicle Operating Costs
VOT	Value of Travel Time

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1. Context

2.1 **Country and Macroeconomic Overview.** The Republic of Kazakhstan is a large landlocked economy located in Central Asia. Surrounded by other Asian Infrastructure Investment Bank (AIIB) Members, Kazakhstan also has a significant shoreline along the Caspian Sea. With an area of 2.7 million square kilometers (km²), it is the ninth-largest in the world. Despite its vast size, it has a relatively small population of around 20.3 million (2024),¹ resulting in one of the lowest population densities globally (seven people per km²).² Kazakhstan retains its investment-grade status, with Fitch (BBB stable) and S&P (BBB- stable) affirming ratings and Moody's upgrading to Baa1 in 2024 on progress in diversification and reforms.

2.2 Kazakhstan has made rapid economic progress over the past two decades, despite significant challenges such as economic and financial crises in 2008 and between 2014 and 2016. The economy has rebounded from downturns in 2020 and 2022 to achieve a gross domestic product (GDP) growth rate of 5.1% in 2023, supported by fiscal expansion and rising oil production. GDP growth slightly slowed to 4.8% in 2024 and is projected to reach 4.9% in 2025.³ Kazakhstan's economy still relies heavily on hydrocarbons and consumer spending, highlighting the need for further economic diversification. Kazakhstan's resource-driven economy and geography have led to disparities in living standards and per capita income, particularly between urban and rural areas. To achieve sustainable and inclusive growth, Kazakhstan needs to address these challenges, especially the regional disparities and urban-rural divide.

2.3 **Regional Connectivity and the Western Europe-Western China International Transit Route.** Kazakhstan's strategic location at the crossroads of Eurasian connectivity presents opportunities for trade and investment. The Government of Kazakhstan has made considerable progress in enhancing and expanding corridor connectivity to facilitate trade and transit. Investments in national road and rail networks, with support from international financial institutions, have improved infrastructure and developed key transit routes. However, significant gaps remain, limiting connectivity between regions, restricting exports to neighboring and European markets and constraining Kazakhstan's potential as an east-west transit corridor.

2.4 Existing international trade heavily relies on the "Northern Corridor" of the Asia-Europe trade route. Recognizing the need to adapt to the geopolitical conditions by diversifying trade routes and building economic resilience, the government has acknowledged the potential of the Middle Corridor, also known as the Trans-Caspian International Transport Route, passing through Kazakhstan. However, significant operational improvements and investments in ports, highways and railway infrastructure are essential to fully unlock its potential and triple trade volumes along the Middle Corridor. At the same time, the Western Europe-Western China road corridor, which is known as the M-32 corridor, serves as an alternative route, contributing to growing traffic volumes across the region.

¹ Tengri News. 2025. [Population of Kazakhstan as of December 1, 2024, has been announced](#). January 6.

² Trading Economics. 2025. [Kazakhstan - Land Area \(sq. Km\) - 2025 Data 2026 Forecast 1961-2022 Historical](#)

³ IMF. Data Mapper. [Republic of Kazakhstan](#). April 2025.

2.5 Regional Development. Aktobe region is a large industrial and agricultural region of Kazakhstan, covering an area of 300,629 km² and has a population of approximately 950,900, around 4.7% of the total population (2025).⁴ Its gross regional product was USD9.6 billion in 2023 accounting for 3.6% of Kazakhstan's GDP. The region has significant potential for further development of the metallurgical, chemical and oil and gas industries, as its subsoil contains deposits of a wide range of minerals, including chromium, nickel, titanium, phosphorites, zinc, copper and aluminum.

2.6 Despite its rich mineral resources, Aktobe has not positioned itself as a resource-based economy reliant on raw materials and commodity exports. Instead, it has focused on developing a well-established manufacturing sector and local processing industries. In addition to mining and hydrocarbon processing, it has established industries for ferrous and non-ferrous metallurgy, mechanical engineering and metalworking, chemicals, food, building materials, among others. There are 19,257 registered enterprises in Aktobe, of which 394 are classified as medium-to-large size.⁵ Some of these enterprises are recognized as world-class in their respective sectors and play a vital role in the region's economic development. The government has implemented several initiatives to create a favorable business environment and attracted more than 1,050 foreign enterprises. Aktobe's total foreign trade was approximately USD4.4 billion in 2024, with trade relationships to 51 economies. Exports accounted for USD2.8 billion comprised of 51% raw materials, 46% semi-finished goods and 3% finished products. Imports amounted to USD1.6 billion, composed of 51% semi-finished products, 41% finished goods and 8% raw materials.⁶ The capacity, service quality and efficiency of the region's transportation infrastructure, particularly in the road sector, play a critical role in strengthening the local industrial value chain and driving economic growth.

2.7 To further enhance the region's investment appeal, in November 2024, the government announced plans to create a Special Economic Zone (SEZ) in Aktobe, which is set to operate until 2049.⁷ Prior to the SEZ announcement, the region already had an Industrial Zone situated along the Western Europe-Western China road corridor, approximately 12 kilometers (km) from the Aktobe city center and 65 km from the border. The special legal regime is intended to further boost industrial development and economic diversification in Aktobe, with a focus on export-oriented sectors.

2.8 Transport Sector Overview: Kazakhstan's road and railway transport network have been inadequate to meet the domestic and international transit demands. Kazakhstan has a sparsely distributed population across a vast land area, resulting in one of the lowest road densities in the world. Its existing road network spans 98,000 km, with 25,000 km designated as national highways, including 24 tolled sections stretching over approximately 4,400 km of road. A large portion of the existing road network was built during the former Soviet Union years and has since deteriorated, significantly affecting both safety and efficiency. According to the United Nations Economic Commission for Europe (UNECE), Kazakhstan had a fatalities rate of 120 per million habitants in 2021, ranking the fourth-highest among all economies

⁴ Government of Kazakhstan. 2025. <https://stat.gov.kz/en/region/>

⁵ Aktobe Investor Update received from QAJ. 2025. <https://astanatimes.com/2023/05/aktobe-region-drives-economic-growth-through-exports-and-tourism/>

⁶ Aktobe Investor Update received from QAJ. 2025. <https://astanatimes.com/2023/05/aktobe-region-drives-economic-growth-through-exports-and-tourism/>

⁷ KazTag. November 2024. <https://kaztag.kz/en/news/special-economic-zone-to-be-created-in-aktobe-region>

assessed.⁸ As of 2023, around 2.89 million rural residents still lacked access to an all-season road.⁹ Kazakhstan’s railway system spans approximately 16,400 km, making it one of the 15 largest in the world. Around 28% of the railway is electrified, while 69% remains single-track.¹⁰ In 2024, the railway network transported 327.9 billion ton-km of goods (a 0.3% percent year-on-year increase),¹¹ accounting for 65% of Kazakhstan’s total freight volume.¹² In the same year, approximately 20 million passengers were transported by rail nationwide, with total passenger turnover reaching around 16 billion passenger-km.¹³

2.9 Transport in Aktobe region is primarily reliant on its land transport networks. In 2024, the transportation and storage sectors contributed approximately 9.7% of the region’s GDP. Aktobe’s railway network spans approximately 1,500 km of the region and is serviced by eight railway stops for both passenger and freight transport. Aktobe is linked by railway to Khromtau, while Ulgaisyn and Belkopa are not directly connected to Aktobe by railway. In 2023, the region’s railway cargo turnover stood at 30.6 billion ton-km, down from 31.8 billion ton-km in 2022. Passenger turnover was 1.27 billion passenger-km in 2023 (down from 1.44 billion passenger-km in 2022). There is no existing railway line, nor is any railway line planned along the M-32 road corridor.

2.10 A significant increase in goods transport by road has been recorded in recent years in Aktobe, with growth rates of 40.5% in 2023 and 21.1% in 2024 (Table 1). This increase was considerably higher than the growth in goods transport at the national level, reflecting the fast-growing demand for road traffic in the region.

Table 1: Transportation of Goods by Road in Kazakhstan and Aktobe Region, 2010-2024

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 (est.)
KZT total (million ton)	71.1	73.6	71.8	99	108.1	102.5	109.4	138.6	158.5	197.6	193.2	217.1	263.2	299	322
Growth %	/	3.5	-2.5	37.9	9.2	-5.2	6.3	26.7	14.4	24.7	-2.2	12.4	21.2	13.6	7.7
Aktobe (million ton)	2.6	3.3	3.8	5.1	6	8.5	10.5	8	10.6	14.2	14.1	17.3	28.4	39.9	48.3
Growth %	/	26.9	15.2	34.2	17.7	41.7	23.5	-23.8	32.5	34.0	-0.7	22.7	64.2	40.5	21.1

KZT = Kazakhstan.

Source: Committee on Statistics of Ministry of National Economy of Republic of Kazakhstan, Bureau of National Statistics of Kazakhstan.

2.11 **Toll System.** As of May 2025, out of 24,900 km of national highways, toll systems have been introduced on 25 road sections with a total length of 4,760 km, including: 12

⁸ UNECE. 2023. [Statistics of Road Traffic Accidents in Europe and North America](#).

⁹ Asian Transport Observatory. 2023. Kazakhstan [Green Roads Profile](#).

¹⁰ UN ESCAP. 2022. [Kazakhstan and Kyrgyzstan: Transport Connectivity, Impact of the COVID-19 Pandemic and Euro-Asian Linkages](#).

¹¹ Economic Research Institute Kazakhstan. 2024. [Kazakhstan's Transport Sector: A Dynamic Overview of 2023](#). Performance.

¹² Transport Sector Sustainability Assessment Kazakhstan, Asian Transport Observatory (ATO). 2025.

¹³ Republic of Kazakhstan, Bureau of National Statistics. 2024.

sections of the first technical category with a length of 2,231 km, 13 sections of the second and third technical categories with a length of 2,529 km.¹⁴ Another 8,000 km of toll roads are to be introduced in the near future, once these were repaired and fully comply with regulatory requirements.

2.12 JSC NC KazAvtoZhol (QAJ), a national joint stock company and the national operator of highways and roads, manages the national highway network, including toll roads. The company is responsible for constructing, repairing and maintaining roads, as well as implementing and managing the toll system. QAJ also focuses on improving road safety and ensuring efficient travel while reducing state expenses. QAJ has implemented various information technologies across Kazakhstan's toll system. The two main toll system types are (a) a digital open toll system, which relies on digital license plate recognition and vehicle tracking systems and (b) a hybrid toll system that combines prepaid accounts with manual checkpoints. Toll revenues for the rapidly expanding network are managed and collected through the KazToll portal, overseen by the Directorate of Toll Roads within QAJ. The toll collection and usage follow a pooled mechanism. Since 2022, just four years after the introduction of the toll system, QAJ has been able to finance road maintenance and repairs on tolled roads exclusively through toll revenues. Tariffs are determined via nationally regulated pricing procedures, which include public consultations. The most recent update occurred in 2024. Following a review by PT, the toll rates were found affordable for the general public. QAJ's objective is also to expand the already self-sustaining toll mechanism to cover not only maintenance, but also to be able to support the capital expenditure investment in the road sector.¹⁵ The objective is to expand the already self-sustaining toll mechanism to cover not only most basic maintenance, but also minor repairs and future improvement works.

2.13 **Development Challenges.** Despite the efforts to upgrade and modernize the road sector over the past years, there is still room to improve its governance, including the adoption of road asset management systems for investment and maintenance decisions, corporatization of state-owned enterprises (SOEs), development of segmented road user charges, promotion of public-private partnerships and the implementation of systematic processes to address climate change. A recent analysis showed that Kazakhstan faces significant challenges in adapting its transport infrastructure to climate change, despite Kazakhstan's road network ranking 28th out of 208 economies in terms of potential climate vulnerability.¹⁶

2.14 Road Safety is a significant concern in Kazakhstan with a high number of fatalities and injuries. The cost of road crash fatalities and injuries was estimated at USD7.3 billion in 2020, equivalent to around 4.3% percent of the GDP. In 2022, there were 2,425 fatalities and over 19,000 injuries, which cost around 6% of the Kazakhstan's GDP. The number of fatalities reportedly increased again in 2023, reaching 2,543 deaths and 19,554 injuries from road accidents. As a result, the high per capita fatality rates pose significant challenges in terms of productivity loss and social costs.

¹⁴ QAJ. 2025. <https://en.qaj.kz/tollroads/>.

¹⁵ According to Order No. 1 issued by the Acting Minister of Transport of the Republic of Kazakhstan on September 15, 2023, funds for the maintenance of toll roads are not allocated from the state budget. Maintenance is carried out exclusively using revenue generated from toll fees.

¹⁶ Transport Sector Sustainability Assessment Kazakhstan, Asian Transport Observatory (ATO). 2025.

2.15 Project Contributions. The Project aims to reconstruct and upgrade selected sections of the M-32 Highway in the Aktobe region of northwest Kazakhstan. The M-32 Highway is a key segment of the Western Europe-Western China transport corridor and the European E-Road network (E38), which spans over 3,400 km, of which 2,050 km lie within Kazakhstan. The selected road sections supported by the Project will also serve as an important feeder route to the Middle Corridor. The M-32 Highway begins at the border in the northwest and extends across Kazakhstan to the city of Shymkent in the southwest, near the Kyrgyzstan border. As one of the longest highways in Kazakhstan, it facilitates long-haul traffic for both national and international transportation. Additionally, the M-32 Highway forms part of the national transport network, linking key economic centers, including Aktobe, Kostanay and Astana to the northeast, as well as Kyzylorda, Shymkent and Almaty to the southeast.

2.16 The proposed Project will boost local economies, industrial growth and regional connectivity, providing essential access to safe transport for road users and the local population. The implementation of the Project can simultaneously achieve development goals at three levels:

- (a) *Enhancing regional transport efficiency and mobility:* The Project will improve connectivity between Aktobe, smaller settlements and industrial areas, facilitating the movement of resources from extraction sites to urban centers. This will play a crucial role in strengthening local supply chains and supporting manufacturing development.
- (b) *Strengthening national connectivity:* By linking Kazakhstan's mineral-rich northwest with central regions through an expanded route connecting Aktobe with Ulgaisyn via nine additional settlements,¹⁷ the Project will enhance domestic trade and economic integration. Additionally, the development of safer and more climate-resilient road infrastructure will further stimulate economic growth and generate significant social benefits, including lower travel times and improved access to essential services.
- (c) *Improving cross-border connectivity and integration:* As a key segment of the Western Europe-Western China transit corridor and an important feeder road to the Middle Corridor, the M-32 Highway will enhance international trade and logistical efficiency, reinforcing Kazakhstan's role as a regional transit hub in Central Asia.

2.17 Multilateral Development Bank (MDB) Joint Efforts. The Project is the first project to be implemented as part of the Multi-Year Rolling Pipeline (MYRP) signed between the Government of Kazakhstan and AIIB on Sep. 2, 2025, comprising 14 transport sector projects. A first AIIB sovereign-backed loan of USD650 million, co-financed with the International Bank for Reconstruction and Development, was approved in December 2024 with the objective of improving the road section between Karagandy and Jezkazgan (Project No. P000914). It is noted that the government is collaborating with various MDBs to improve Kazakhstan's road network as its priority in using sovereign-backed financing resources. These MDB-funded projects are independent and the economic viability of each project does not rely on the implementation or completion of the other. Synergies from improvements in the road sector are expected to be achieved in the long term, especially after addressing key issues such as border crossings, transshipment between nodes and operational efficiency. AIIB coordinates its investment with other MDBs in the road sector during operations. The Asian Development

¹⁷ Referring to the small settlements of Enbektu, Karabutak, Zharoktel, Araltogay, Bekopa, Karlau, Don, Bogetsay and Khromtau, all with populations lower than 5,000. Khromtau has a population of around 30,000.

Bank (ADB) is also financing two projects in the Aktobe region: the Central Asia Regional Economic Cooperation (CAREC) Corridors 1 and 6 Connector Road (Aktobe–Makat) Reconstruction Project¹⁸ and the CAREC Corridors 1 and 6 Connector Road (Aktobe–Kandyagash) Reconstruction Project.¹⁹

¹⁸ ADB. [48424-002: CAREC Corridors 1 and 6 Connector Road \(Aktobe–Makat\) Reconstruction Project | Asian Development Bank](#).

¹⁹ ADB. [52286-001: Central Asia Regional Economic Cooperation Corridors 1 and 6 Connector Road \(Aktobe–Kandyagash\) Reconstruction Project | Asian Development Bank](#).

2. Rationale

3.1 **The Project Area** lies in western Kazakhstan, with Aktobe as the main city along the route. The corridor plays a pivotal role in Kazakhstan's economic and strategic landscape, forming part of the Western Europe-Western China international transit corridor. It serves as a backbone for local industrial development by linking mining operations to processing facilities and acts as a major export channel. Heavy trucks transporting minerals and industrial materials are a common sight, underscoring the route's importance to the regional economy. The Project will strengthen local economies by improving connections between Aktobe and smaller industrial settlements, facilitating the flow of resources between extraction sites and urban centers and promoting regional integration within Kazakhstan and across Central Asia.

3.2 Aktobe is located in a continental climate zone, experiencing extreme seasonal variations, from hot, dry summers averaging 25-35 degrees Celsius to cold winters dropping to -10 to -20 degrees Celsius and low annual precipitation of 14-30 millimeters (mm) per month. Seasonal flooding can occur in spring due to rain and snowmelt, a factor already assessed in the lender's due diligence report and addressed through climate adaptation measures. These are recommended for integration in the ESMP for the final design and reflected as covenants in both the EBRD and AIIB loan agreements.

3.3 **The existing M-32 Highway** from Aktobe through Karabutak to Ulgaisyn covers 262 km, connecting Aktobe, Khromtau, Karabutak and Ulgaisyn. It is mainly a category III road (design speed 100 kilometers per hour [km/h]), except for the first 10 km (763-773 km) near Aktobe, which is category I-b (120 km/h). Since its last rehabilitation in 2003-2005, the roadbed and pavement have significantly deteriorated due to rising traffic volumes, heavy freight loads and insufficient maintenance, creating operational and safety issues. The road is now beyond its 20-year service life, with an average travel speed of only 70 km/h and congestion during peak hours, particularly near Aktobe. In 2024, it carried over 6,574 vehicles per day on average, well above its original design capacity of 2,000-6,000, of which trucks made up more than 40%, a sharp rise from 13% in 2021. On certain sections, traffic exceeds 7,000 vehicles daily, nearly half of these are heavy vehicles. Accident rates have also risen. Between January and April 2025, 179 injury accidents occurred in the Project area, compared to 59 during the same period in 2024, with head-on collisions, speeding and rollovers being the most common issues.

3.4 The Project road's upgrade to a four-lane standard will address the insufficient capacity and improve traffic flow, safety and climate resilience. Safety features will include well-defined lanes, guardrails, road markings, reflective markers, improved geometry, signage and lighting at critical points. Climate change impacts—Kazakhstan has been warming at twice the global average, with nine of its 10 hottest years recorded this century²⁰—require adaptation measures such as raising embankments, stabilizing slopes, increasing culvert capacity, using durable pavement materials and enhancing drainage to handle heavy rain and snow accumulation. The April 2024 severe flooding illustrated the urgency of such measures. To ensure sustainability, the Project will adopt an integrated DBM contract model, mobilizing private sector expertise for upfront design and a long-term maintenance program. This life-cycle

²⁰ NewSecurityBeat. 29 April 2024. [Can Kazakhstan Meet Its Climate Goals?](#).

approach aims to overcome chronic maintenance deficits, safeguarding the road's operational performance and maximizing its economic and strategic benefits.

3.5 Sovereign Guarantee Envelope of the Government of Kazakhstan. In early 2025, the government implemented sovereign guarantee envelopes for each budget year. Consequently, sovereign guarantees for infrastructure projects financed by international financial institutions (IFIs) need to be split into annual tranches to stay within the ceiling. This approach reflects the government's prudent fiscal management, aiming to ensure the efficient and effective use of sovereign resources while supporting Kazakhstan's long-term development and debt sustainability. It is particularly well-suited to road improvement projects that increasingly adopt DBM contract models. Under this model, the first year of implementation typically focuses on design activities, requiring limited funding, while the majority of construction and financing needs occur in subsequent years. Splitting the sovereign guarantee in line with actual project implementation needs therefore offers a more realistic and responsive budgeting mechanism.

3.6 In a letter dated March 28, 2025, the government requested the lenders to finance the Project in tranches. The indicative allocation of sovereign guarantees amounts to KZT154.7 billion in 2025 and KZT312.3 billion in 2026, with each tranche to be equally shared between the two co-financiers.

3.7 EBRD has structured its financing for this Project in two tranches spanning 2025 and 2026 and obtained Board approval in May 2025. Tranche-based financing is a standard EBRD practice to align with client needs and project-specific circumstances. EBRD has extensive positive experience in implementing similar tranche financing approaches in sovereign-backed transport projects.²¹

3.8 Project Objective. To provide safe, efficient and climate-resilient connectivity along the Aktobe-Karabutak-Ulgaisyn section of the M-32 Highway in Kazakhstan's Aktobe region.

3.9 Expected Beneficiaries. The Project will directly benefit road users, the local population residing in cities, towns and settlements along the road, as well as long-distance travelers through improved road conditions, safety and services. Local industries and regional and international freight companies using the corridor will also benefit from increased logistical efficiency and reduced working capital requirements. Additionally, the road owner and operator will benefit from the adoption of an integrated DBM approach, which includes built-in incentives to ensure the life-cycle quality of the assets and incorporates climate resilience measures into the road design.

3.10 In addition, the Project will have positive socioeconomic impacts by creating better business conditions for the growth of small and medium-sized enterprises (SMEs) in local industries, contributing to value creation and enabling the export of higher-value goods and services.²² The highway upgrade will enhance the region's attractiveness for new businesses,

²¹ For example, EBRD's Ukraine Road Corridors Project approved in 2020 <https://www.ebrd.com/home/work-with-us/projects/psd/50831.html>, and the Belarus Regional Bridges and M3 Road Rehabilitation Project approved in 2019 <https://www.ebrd.com/home/work-with-us/projects/psd/51090.html>.

²² There is substantial evidence for this claim in the context of Central Asia, for example, ADB. 2021. <https://www.adb.org/sites/default/files/publication/688061/adbi-book-developing-infrastructure-central-asia.pdf>.

facilitate freight and goods transportation and complement other government initiatives in the region, such as the recent establishment of a SEZ in Aktobe.

3.11 Expected Results. The Project is expected to reduce the average travel time along the Aktobe-Karabutak-Ulgaisyn section, incorporate climate adaptation measures into road design, increase the traffic volume along the road section, enhance the road condition and road safety and improve local population's access along the corridor. The intermediate results will also include, among others, developing and implementing a Gender-Based Violence and Harassment (GBVH) Policy with procedures for reporting incidents. Annex 1 presents the Project's Results Monitoring Framework.

3.12 Strategic Alignment with AIIB. The Project is in line with the Bank's Corporate Strategy and Transport Sector Strategy. It responds to two thematic priorities of the Bank:

- (a) Connectivity and Regional Cooperation: The Project supports a strategic road section of the M-32 Highway, which is a key segment of the Western Europe-Western China transport corridor, serving as a land transport link between East Asia in the east and Europe in the west.
- (b) Green Infrastructure: The Project aims to improve road quality by integrating climate-resilient standards into its design and implementation. This aligns with the Bank's thematic priority of promoting sustainable and climate-resilient infrastructure.

3.13 The Project also aligns with most of the priority areas outlined in the Bank's Transport Sector Strategy:

- (a) Trunk linkages: The Project is a key section of the M-32 Highway, connecting the northwest to the commercial zone around Shymkent in the south. The Project strengthens this corridor and enhances connectivity between major economic centers.
- (b) Cross-border connectivity: The Project is a vital part of the Western Europe-Western China international transit corridor and a strategic freight route linking Asia and Europe, facilitating regional trade, economic integration and cross-border cooperation.
- (c) Upgrading of existing infrastructure: The Project aims to reconstruct and upgrade 234 km of the existing 262 km, primarily category III highway, between Aktobe, Karabutak and Ulgaisyn into a category I-b/I-a dual-carriageway. The upgrade will incorporate climate resilience and road safety standards to meet AIIB and EBRD requirements, improving the quality, service and efficiency of the existing infrastructure.

3.14 The Project will be financed through two loan tranches. This financing modality is justified based on the following considerations:

- (a) Meeting Kazakhstan's long-term development needs.
- (b) Completing the Project with a significant total investment requirement of USD1,023 million.
- (c) Aligning with the approach of the lead co-financier, EBRD.
- (d) Adopting a DBM contract model, under which the first year of implementation is typically focused on design activities with limited funding needs, while the bulk of construction and financing requirements arises in subsequent years. Following a

tranche financing modality will increase the construction readiness and build institutional and implementation capacity.

- (e) Enabling full procurement of all Project contracts at the outset, promoting healthy market competition, while aligning with the government's sovereign guarantee ceilings, reflecting a more responsive budgeting mechanism and supporting improved debt sustainability.

3.15 Strategic Fit for Kazakhstan. The development of the Aktobe-Karabutak-Ulgaisyn section of the M-32 Highway is part of the State Program for the Development and Integration of Transport System Infrastructure in the Republic of Kazakhstan until 2050.²³ This State Program was approved by Presidential Decree No. 725 on Jan. 13, 2014. It was developed to fulfill the goals of accelerated economic growth, high-quality development and improved living standards in Kazakhstan as outlined in the "Kazakhstan 2050" strategy. The existing M-32 Highway runs through the western part of Kazakhstan and forms a key segment of the Western Europe-Western China transport corridor. It is one of the largest transportation routes connecting the Republic of Kazakhstan with its neighbors. The Project will provide much-needed connectivity improvements to support the government's plans to develop Kazakhstan's transit potential. The Project is consistent with Kazakhstan's Nationally Determined Contribution (NDC) and associated mitigation goals, which include measures such as the development of sustainable transport, infrastructure for electric and gas vehicles and smart traffic management systems.

3.16 Paris Agreement Alignment (PAA) and Climate Finance. In line with AIIB's methodology for assessing the alignment with the mitigation and adaptation goals of the Paris Climate Agreement, the Project is assessed as aligned. Annex 4 provides the details of the assessment. In line with the joint MDB methodology for tracking adaptation finance, it is estimated that USD66.2 million of the Project cost contributes to supporting adaptation, making the climate finance share of the Project 14.7% of AIIB's investment. The Project does not qualify as climate mitigation finance.

3.17 Value Addition by AIIB. Given the Project's scale, innovative contract method and expected impact, close collaboration among MDBs is crucial for its successful and efficient implementation. In addition to providing financing to fill critical gaps, AIIB's participation enhances project preparation and implementation in two key aspects:

- (a) *Technical Expertise and Capacity Building:* AIIB brings valuable technical expertise and knowledge gained from its previous and ongoing road projects in Kazakhstan and other Members in the region. The Bank has a deep understanding of the complexities and challenges involved in upgrading road infrastructure through the DBM contract model. AIIB has engaged an experienced transport consultant with expertise in DBM and road engineering in the region. It also plans to mobilize additional technical resources and leverage synergies with other road projects in Kazakhstan—especially in procurement, performance-based maintenance contracting and ES—to support QAJ in applying international best practices and ensuring the successful implementation of DBM.

²³ Address by the President of Kazakhstan on "Strategy Kazakhstan 2050".
<https://policy.asiapacificenergy.org/sites/default/files/Presidential%20Address%20%27Strategy%20Kazakhstan-2050%27%20%28EN%29.pdf?>

(b) *Road Safety and Climate Adaptation Measures*: AIIB has a well-developed PAA methodology that guides its investment operations. This methodology is, in principle, aligned with other MDBs' approaches, with some variations in detail. AIIB's involvement ensures that sufficient climate-resilient measures are considered and integrated into the design and reconstruction of the road. AIIB also introduces the iRAP system to ensure the road safety of the new road is up to international standards. This aligns with AIIB's commitment to the Paris Agreement climate goals and promotes the long-term sustainability of infrastructure.

3.18 **Value Addition to AIIB.** The Project is AIIB's second SBF regular investment project in Kazakhstan. Kazakhstan has vast and diverse infrastructure needs, aligning well with AIIB's mandate to support regional connectivity. After AIIB's approval of the Karagandy-Jezkazgan road improvement project at the end of 2024, this Project will further enhance the partnership between AIIB and Kazakhstan, establishing a project network in Kazakhstan and expanding AIIB's experience in the region. Through co-financing with various MDBs in the same sector, this presents a valuable opportunity for AIIB to gain experience by comparing the implementation of these projects, considering that they share the same client institution, have a similar project scope and contractual arrangement, but involve different lead co-financing partners. The experience and lessons learned will allow the Bank to form the most suitable approach to address client needs in the transport sector, including through both stand-alone and co-financing modalities.

3.19 In the context of the government's new sovereign guarantee arrangement, the loan tranche approach is expected to become common practice for financing large-scale infrastructure projects. This instrument aligns with AIIB's broader ambition to position itself as a long-term partner of Kazakhstan, particularly in the transport sector. The Project can serve as an "anchor project," demonstrating AIIB's capacity and agility to respond to its members' needs while supporting their efforts to strengthen debt sustainability. It will also create opportunities to deepen strategic engagement, strengthen in-country networks and expertise and foster sustained collaboration with the government.

3.20 The adoption of the loan tranche approach under this Project will directly support implementing the Multi-Year Rolling Investment Pipeline (MYRP, 2025-2029), signed between the government and AIIB on Sep. 2, 2025. As the inaugural operation among the 14 projects included in the MYRP, this Project will showcase AIIB's client-focused approach to financing, while contributing to the comprehensive modernization of Kazakhstan's highway network and the strategic development of key transport corridors.

3.21 **Lessons Learned.** A few road projects²⁴ with similar nature and content financed by other MDBs experienced significant cost and time overrun, which provides valuable lessons learned for the design of this Project. The challenges encountered by these projects include: (a) traditional input-based contracting leads to frequent changes and adjustments in large-scale road projects, eventually causing cost overruns; (b) a lack of incentives for timely completion of both design and construction results in delays and (c) insufficient maintenance of road assets by SOEs due to state budget limitations. Building on these lessons, this Project is designed with an integrated design-build-maintenance approach that includes built-in

²⁴ The South-West Roads Project (SWRP) and the East-West Roads Project (EWRP) financed by the World Bank.

incentives to ensure asset life-cycle quality, a lump-sum cost structure and the timely completion of Project activities. It also allows for the full engagement of the private sector throughout the Project cycle, particularly by enhancing asset management through a performance-based maintenance contract.

3.22 The PT reviewed the interim Sector Landscape and Diagnostic Working Paper (*Diagnostic Analysis on the Targeted Connectivity Sectors in Central Asia*), prepared in January 2025 for the Joint Working Team of AIIB, the Islamic Development Bank and the Multilateral Cooperation Center for Development Finance. The report assesses connectivity sectors in Central Asia, outlining challenges, opportunities and recommendations to strengthen regional integration and economic growth. It underscores the transport sector's central role in trade and development and identifies common success factors: (a) strategic funding, (b) public–private partnerships, (c) sustainability and (d) regional cooperation. The Project incorporates these recommendations to ensure an effective and impactful outcome.

3. Project Description

4.1. **Project Description.** The Reconstruction of M-32 Highway Aktobe-Karabutak-Ulgaisyn Section Project involves the rehabilitation and upgrading of a 234-kilometer road section from two to four lanes, starting from the city of Aktobe, passing through Karabutak and ending at Ulgaisyn, as well as the required supervision, implementation support and capacity building activities.

4.2. The selected road section of the M-32 Highway for examination and improvement from Aktobe through Karabutak to Ulgaisyn (763-1,025 km) is divided into four main segments and seven construction lots. Segment 2 (791-819 km) is already under construction using government funding and will not be financed under this Project. The Project will only support the simultaneous construction of Segments 1, 3 and 4:

- (a) Segment 1: 763-791 km between Aktobe and Akzhar (28 km) – one lot.
- (b) Segment 3: 819-927 km between Khromtau and Belkopa (108 km) – three lots.
- (c) Segment 4: 927-1,025 km between Belkopa and Ulgaisyn (98 km) – two lots.

4.3. The Project consists of the reconstruction and upgrade (from two to four lanes) of an existing 234-km road (sections 763-791 km and 819-1,025 km) to a technical category I-b road with a design speed of 120 km/h. The upgrade will include a mix of road widening and constructing separated carriageways, depending on technical considerations and site conditions. It will connect Aktobe through Karabutak to Ulgaisyn, connecting nine further settlements along the way and benefitting a population of around 579,000, thereof approximately 300,000 are women. The road upgrade is driven by the need to increase capacity, improve safety and enhance climate-resilient features. Key features will include, among others, new embankments with raised vertical alignment; climate-resilient pavement and drainage infrastructure, including culverts, bridges and water outlets; road signs and markings; and slope protection along the embankment. The design and construction will also include grade-separated interchanges at key intersections and populated areas; several U-turns and intersections; roadside service areas with toilet facilities; maintenance depots, bus stops near intersections and junctions to improve pedestrian access and provide local communities with direct highway connections; strategically placed pedestrian and cattle crossings to address social and environmental concerns. Additionally, the component will cover the relocation or protection of existing utility networks, such as water pipes, electrical transmission lines and gas pipelines, to ensure their safety and functionality during construction.

4.4. The road will also incorporate enhanced climate resilience elements, including improved road pavement materials, snow barriers and flood prevention measures. These flood prevention measures will include permeable rockfill embankment layers, elevated road alignment, increased culvert capacity and an improved drainage system for the road and bridges. All enhancements will be designed to optimize water flow capacity in accordance with extensive hydrological investigations and forecasts. Fully equipped service areas and maintenance depots will be established along the road corridor with improved sanitation systems, heated facilities and services. The road maintenance depots will be constructed and fitted out to support routine, winter and emergency operations. These facilities may also serve as emergency shelters and be equipped with early-warning systems for extreme weather events. The Project will have four components.

4.5. **Component 1: Design and construction of the selected road sections of the M-32 Highway.** This is the major component of the Project and encompasses the design and construction of the selected sections of around 234 km along the Aktobe-Karabutak-Ulgaisy road corridor to meet up-to-date climate-resilience and road safety standards. It will introduce an integrated DBM contract model to optimize value for money, enhance road sustainability and foster private sector participation. The DBM contract creates a single point of responsibility for construction and maintenance. It also transfers risks to the private sector, where it can be better managed. This component will mainly finance the design and civil works.

4.6. **Component 2: Construction Supervision Consultant (CSC) of the selected road sections of the M-32 Highway.** This is to engage the CSC/s as the Engineer to supervise the design and construction of the road improvement works, monitor implementation progress, certify payments and ensure quality compliance.

4.7. **Component 3: Project implementation support.** This component involves hiring Project Management Consulting firm/s (PMC/s) with proven qualification and experience in engineering, ES and contractual and financial management to support the Borrower and Project Implementation Unit (PIU) during the design and construction stages to ensure high-quality implementation that is in full compliance with the Banks' requirements. The Project implementation support shall also ensure that appropriate road safety features are fed in the design and execution of the works. The iRAP safety audit system will be used to measure and improve the safety characteristics of the Project road's designs. The iRAP Star Ratings reflect the risk to individual road users and are an objective measure of the level of safety that is "built-in" to a road.

4.8. **Component 4: Capitalized front-end fee and contingency.** This component primarily finances the capitalized front-end fee (FEF) of each bank's loan, with each lender covering its respective fee. Due to differences in the FEF rates applied by AIIB and EBRD, a surplus is expected under AIIB's loan proceeds. This surplus may be used as contingency funding to support the other three components on a demand basis and to ensure high-quality Project implementation, subject to further agreement between QAJ and AIIB.

4.9. **Project Cost Estimation and Financing Plan.** AIIB and EBRD propose to co-finance the Project, with EBRD as lead co-financier. Both AIIB and EBRD will provide financing in two loan tranches. The total Project cost is estimated at USD1,023 million (Table 2 has more details), including design, construction, supervision, implementation support, capitalized front-end fee and contingency. The Project cost does not include any maintenance cost. In the tender document of the DBM contract, the maintenance cost will be included as a provisional cost item, calculated based on national standards and norms and will not be part of the tender competition. All maintenance expenditure under the DBM contract will be paid to the contractor by the government within seven years following the completion of road construction. The commitment fee and interest during the construction are also excluded from the Project cost and will be financed by the government through budgetary allocations.

Table 2: Detailed Cost Breakdown by Project Component*

Project Components	Total Cost (USD million)	AIB Financing (USD million)	EBRD Financing (USD million)	Gov Fund 12% (USD million)
Component 1 Design, construction, rehabilitation and maintenance of 234 km Aktobe-Karabutak-Ulgaisyn Road	1,002.9	441.3	441.3	120.4
Lot 1: km 763-791	136.8	60.2	60.2	16.4
Lot 2: km 819-847	141.9	62.4	62.4	17.0
Lot 3: km 847-889	168.0	73.9	73.9	20.2
Lot 4: km 889-927	138.8	61.1	61.1	16.7
Lot 5: km 927-965	158.9	69.9	69.9	19.1
Lot 6: km 965-1025	258.6	113.8	113.8	31.0
Component 2 CSC for 234 km Aktobe-Karabutak-Ulgaisyn Road	7.4	3.2	3.2	0.9
Component 3 Project Implementation Support	3.2	1.4	1.4	0.3
Component 4 Capitalized Front-End Fee & Additional Contingency**	9.0	4.5	4.5	-
Total	1,023.0	450.0	450.0	123.0

*All costs and funding amounts in this report are presented in USD, using an exchange rate of USD1 = KZT 510.66, as agreed for review purpose during the appraisal mission on May 19, 2025.

**Each line item includes standard contingency in line with Government of Kazakhstan's domestic practice. In addition, Component 4 provides supplementary contingency to serve as an additional buffer.

4.10. Co-financing Arrangements. The co-financing arrangement will follow the Co-financing Framework Agreement (CFA) between EBRD and AIIB. Therefore, EBRD's Environmental and Social Policy (2014) (ESP), EBRD's Procurement Policies and Rules (2022) (PPR) and EBRD's Independent Project Accountability Mechanism will apply in lieu of AIIB's Environmental and Social Policy (ESP), AIIB's Procurement Policy and AIIB's Project-affected People's Mechanism (PPM), respectively.

4.11. Multi-tranche Financing Structure. Approval is sought for financing up to USD450 million for the Project. The financing will be committed in two loan tranches, through two separate packages of Loan Agreements and Guarantee Agreements. The amount of the first loan tranche is USD152 million, expected to be committed in 2025. The second loan tranche of USD298 million, to be committed within approximately 12 months following AIIB Management's verification of the conditions set forth in paragraph 4.14.

4.12. The financing for the Project is proposed to be committed in loan tranches to (a) meet Kazakhstan's long-term development needs, particularly in balancing the large scale of infrastructure investment demand and its long-term debt sustainability; (b) align with the government's recently introduced sovereign guarantee envelopes arrangement and (c) use the DBM contract model making the Project a strong case to adopt multi-tranche financing to increasing the construction readiness and, building institutional and implementation capacity. Each financing tranche supports a group of contracts according to an indicative tranche schedule, based on the implementation process and projected contract disbursements.

4.13. Subject to the approval of the financing of the Project, a first loan in the amount of USD152 million will be committed. This first loan tranche will finance around 34% of all

activities and contracts of the total Project. It will focus on procuring DBM contractors and the supervision consultant, hiring the project implementation support consultant, advancing the design of the road, updating the relevant ES instruments and commencing the construction.

4.14. Conditions to Initiate the Second Loan Tranche. The conditions for proceeding with the commitment of the second loan tranche are: (a) the performance of the first tranche loan is satisfactory to the Bank,²⁵ (b) a separate formal request by the Borrower for the second tranche financing, (c) commitment of the second loan tranche by the lead co-financier and (d) the availability of AIIB funds for the second tranche. AIIB and EBRD will coordinate on the timing of processing the second loan tranche.

4.15. Project Financing Plan by Two Tranches. The Project will be co-financed by AIIB and EBRD. As the lead co-financier, EBRD has approved a sovereign-backed loan of up to EUR434.8 million (equivalent to around USD450 million) for the Project and plans to split it into two tranches of sovereign-guaranteed loans: 34% as the first tranche and 66% for the second. AIIB financing is also proposed to be provided in two loan tranches equal in amount to that of the lead co-financier in 2025 and 2026. The government will provide counterpart funding of up to 12% of the total Project cost across both tranches. Table 3 summarizes the Project cost and financing plan by tranches.

Table 3. Project Cost and Financing Plan by Tranches

Source	Total financing, USD million (% of total Project cost)	1st loan tranche, USD million (% of total Project cost)	2nd loan tranche, USD million (% of total Project cost)
AIIB	450* (44%)	152 (15%)	298 (29%)
EBRD	450 (44%)	152 (15%)	298 (29%)
Government of Kazakhstan	123 (12%)	41 (4%)	82 (8%)
Total	1,023 (100%)	345 (34%)	678 (66%)

*Approximately USD 450 million (equivalent to KZT292,974.25 million) of AIIB SBF for the Project, which will be provided through two loan tranches: Approximately USD152 million (equivalent to KZT77,500 million) as the first loan and approximately USD298 million (equivalent to KZT152,474.25 million) as the second loan.

4.16. AIIB and EBRD will both finance 44% of the total Project cost, whereas each bank will disburse 15% as the first tranche and 29% as the second tranche. The government will contribute the remaining 12% as counterpart funding, 4% under the first tranche and 8% under the second.

4.17. Implementation Arrangements and Readiness of the Project

4.17.1. Implementation Arrangements.

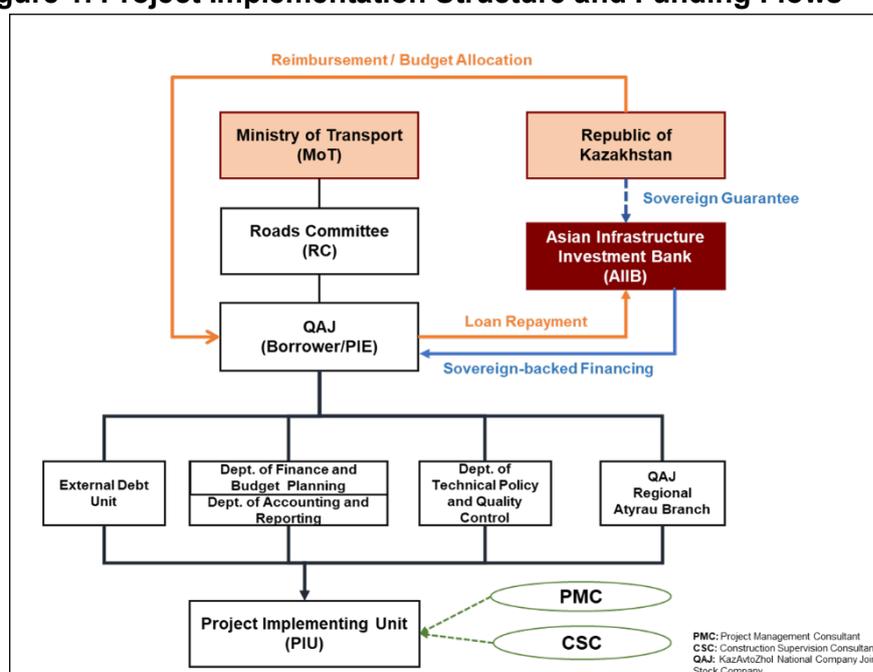
(a) **Project Implementation Unit (PIU).** The Project adopts a typical implementation structure for the road sector in Kazakhstan. “KazAvtoZhol National Company JSC” (QAJ), the national road operator, will be the Borrower and responsible for delivering Project outputs and outcomes for both tranches. QAJ will manage the

²⁵ The assessment will focus on procurement performance for DBM contractors and construction supervision consultants, the engagement of the project management consultant, progress achieved by the DBM contractors in design, and the updating of relevant ES instruments in line with the banks' requirements.

Project through a Project-specific PIU,²⁶ leveraging on well-established functional departments within QAJ. The PIU will be established consisting of in-house capacity and expertise from QAJ functional departments and supported by external consultants at different stages. The PIU will be the focal team and directly oversee, manage and coordinate overall Project implementation, including procurement, technical decisions, contractual management, ES oversight, disbursement, financial management, monitoring, reporting and evaluation. Project preparation and procurement are mainly carried out by PIU specialists from QAJ's Technical Policy and Quality Control Department, with the support from the international procurement consultant. Once the civil work contractors and supervision consultants are contracted, the PIU specialists from the Aktobe Regional Branch will play a critical role as the employer representative in the field to closely monitor progress of project implementation. The PIU's specialist from QAJ's External Debt Unit will be responsible for overall Project implementation, including the incorporation of ES requirements, contractual management and financial management with the support of a qualified and experienced PMC, which will be financed through Component 3 of the Project. Specialists from QAJ's Accounting and Reporting Department, Finance and the Budget Planning Department will be in charge of the Project's financial management, disbursement, accounting and provide information to the PIU to generate necessary reports for AIIB and EBRD.

(b) The PIU will primarily implement Project activities by engaging with civil works contractors, consulting firms, individuals and other suppliers as needed through contracts. QAJ, through the PIU, will also be responsible for any post-completion evaluation arrangements related to the Project and ensure quality and compliance with the agreed ES requirements. The implementation structure and funding flows are illustrated in Figure 1.

Figure 1. Project Implementation Structure and Funding Flows



²⁶ Structured as a "Core Team" and leveraging on the relevant functional departments of QAJ.

(c) **Procurement Arrangements.** The Project is cofinanced with EBRD. As EBRD is the lead co-financer, the procurement of goods, works and services contracts jointly financed by both banks under the Project will be carried out by QAJ under EBRD supervision in accordance with EBRD's Procurement Policies and Rules (dated May 15, 2022). EBRD's Procurement Policies and Rules are materially consistent with the Core Procurement Principles and Procurement Standards set forth in AIIB's Procurement Policy and are therefore deemed fit for purpose and acceptable to AIIB.

(d) The PIU will be responsible for overseeing the Project's procurement process and contractual management. Procurement and contractual management staff for the PIU will be assigned from relevant functional departments of QAJ. PIU, with the intensive participation of relevant functional departments of QAJ, will carry out procurement and contractual management of the Project.

(e) To strengthen the procurement preparation capacity of the PIU, procurement support consultants have been engaged by EBRD at the Project preparation stage to advise and support the PIU in preparing and procuring the DBM works contracts and consulting services contracts under the Project and to accelerate the procurement process. The CSC/s will be hired under Component 2 as the Engineer/s to supervise construction works. A PMC will be hired under Component 3 to strengthen the PIU's Project procurement and contract implementation capacity, as well as monitoring the implementation progress and performance during the implementation stage.

(f) The PIU, with support of the advance procurement support consultants, prepared a draft Project Procurement Plan (PP), which sets out the specific procurement arrangements of the Project. The latest version of the Project PP includes contract packages, cost estimates, contract types, procurement methods and expected procurement timelines, and was reviewed and accepted by EBRD and AIIB in accordance with EBRD's Procurement Policy. It may require further refinement and agreement between the PIU and both banks at the implementation stage.

(g) The procurement process for contracts jointly financed by AIIB and EBRD will be conducted using the EBRD Client e-Procurement Portal (ECEPP) which is both EBRD's procurement platform and an information exchange channel between EBRD and QAJ to supervise and monitor the procurement process. ECEPP supports the full procurement cycle for contracts jointly financed by both banks, from procurement planning, publication of tender notices, access to tender documents and bid submissions, to the opening of tenders, submission of evaluation reports for joint review, publication of contract award notices and handling of amendments to the tender documents and clarifications. It remains in use from contract award to contract signing and contract management.

(h) During the procurement process, EBRD will lead supervision and issue no-objections to QAJ's procurement decisions, in accordance with EBRD's supervision modality and Procurement Policy. AIIB will work closely with QAJ and EBRD to be actively involved in the supervision process by reviewing and commenting on the shared procurement process documentation from both the procurement and technical

perspectives to further enhance procurement quality and Project implementation in line with AIIB's requirements.

(i) **Financial Management (FM) Arrangements.** QAJ will oversee daily implementation and assume FM responsibilities. It will also serve as the primary reporting entity to AIIB. QAJ has accumulated experience in implementing and managing over 10 projects financed by nine international financiers, such as ADB, EBRD, the World Bank and other bilateral development banks. The Project's Interim Unaudited Financial Reports will be submitted to AIIB within 45 days after the end of each calendar quarter. Audited annual Project financial statements will be submitted to AIIB within six months after the end of each financial year.

(j) **ES Arrangements.** The PIU, with support from the Project Management Consultant at Headquarters (PMC HQ Team), will be responsible for overall oversight and quality control of ES management, ensuring compliance with ES requirements. The PIU's ES staffing and implementation arrangements have been discussed and agreed upon with QAJ. The establishment of the PIU with acceptable staffing, as required by the Bank, is a condition for loan effectiveness for the first loan tranche. At the PIU level, QAJ will engage at least one environmental specialist and one social development specialist by the time the Project becomes effective, either through PMC support or in-house staff assignment. Additional ES staff will be recruited under the PMC to support QAJ and Aktobe Regional Branch as needed throughout the implementation process. The DBM contractors will also be required to engage qualified ES specialists. The Lenders' Monitoring Consultant will be engaged by both banks and provide periodic assessments of ES performance and compliance with both EBRD and AIIB, in addition to the ES monitoring and supervision carried out by the ES teams of the PMC and CSC. Furthermore, independent assessments or monitoring may be commissioned on an as-needed basis. The Environmental and Social Action Plan (ESAP) prepared for the Project will outline these requirements.

(k) **Project Implementation Plan:** As a joint co-financed Project, with EBRD as lead co-financer, the Project will be implemented in accordance with EBRD's policy, standards and specific requirements stipulated in the legal documents. The Project preparation and implementation follow EBRD's normal practice. During Project preparation, EBRD has engaged external consultants carrying out the preparation of the local feasibility study report, technical due diligence, ES assessments and instruments' preparation and climate-related assessments. EBRD also engaged advance procurement support consultants to support QAJ in the preparation of procurement documents and their processing. During Project implementation, the PIU will receive quality and sufficient support from CSC and PMC. The Terms of Reference for these two key consultants will be developed to meet AIIB and EBRD's requirements. EBRD will hire a Lenders' Monitoring Consultant to carry out the implementation monitoring, review the implementation progress and compliance and report to both lenders on a quarterly basis. AIIB as co-financer will share the additional cost directly related to preparation and supervision of the Project, subject to the Project-specific co-lenders agreement between AIIB and EBRD.

4.17.2. **Implementation Period.** The Project implementation period is expected to be approximately five years, from November 2025 to November 2030, primarily covering the design and construction phases of the contracts.

4.17.3. **Implementation Readiness.**

(a) **Status of Feasibility Studies:** EBRD hired a consultant who prepared feasibility studies on the proposed road sections in accordance with national standards. The State Expertise²⁷ approved the feasibility studies and the State Public-Private Partnership Center²⁸ approved the investment. The national design institutions prepared the preliminary design documents. Though it is assessed as not completed, they will be included in the tender documents as reference designs for bidders.

(b) **Status of Procurement:** AIIB and EBRD reviewed and endorsed, in principle, a finalized Procurement Plan for the whole Project. The procurement for all three segments (comprising four lots and two lots) of DBM road construction contracts followed a prequalification process. QAJ launched the procurement process (prequalification stage) for all six lots of road design, construction and maintenance contracts under the Project. The advance procurement support consultant prepared the prequalification documents for the four-lot and two-lot tenders. QAJ issued invitations for pre-qualification for the two packages on July 15, 2024 and Dec. 23, 2024, respectively. The actual closing date for submitting applications for the first four lots was Nov. 18, 2024 and EBRD approved the evaluation of prequalification applications for the first four lots on Feb. 28, 2025. The closing date for applications for the remaining two lots was Feb. 21, 2025 and their evaluation is underway. The preparation of tender documents for the first four lots of works contracts was completed and submitted to both AIIB and EBRD for review and comments. The preparation of tender documents for the remaining two lots, as well as the request for proposals for three construction supervision service contracts is still underway.

(c) **Required Clearances/Approvals for Project Implementation:** To commence Project implementation, both EBRD and AIIB must approve their respective financing for the Project and commitment to the first loan tranche and the corresponding legal documents must be signed and become effective. EBRD obtained board approval for the entire Project in May 2025. The use of EBRD's financing has also been approved by the Republic Budget Committee of Kazakhstan as part of the Project's financing plan.

4.17.4. **Monitoring and Evaluation.** A Lenders' Monitoring Consultant will be engaged to submit semiannual reports to EBRD and AIIB. These reports will provide regular updates on the Project's implementation status, highlighting key issues, physical and financial progress, compliance with ES standards, stakeholder engagement and any registered complaints.

²⁷ Republican State Enterprise "State non-departmental Project Expertise"(RSE "Gosexpertiza"): state enterprise of the Committee on construction and housing utility of the Ministry of Industry and Infrastructural Development of the Republic of Kazakhstan, which examines, evaluates, and approves the development of, among others, transport infrastructure projects.

²⁸ State Institute for attracting investments in infrastructure through the implementation of PPP projects. The sole shareholder of the PPP Center is the Ministry of the National Economy of the Republic of Kazakhstan. As the leading «think tank» for PPPs in Kazakhstan, the PPP Center brings together government, business, and financial institutions on its site.

4.17.5. **AIB's Implementation Support.** While EBRD, as lead co-financier, will oversee Project implementation in line with its policies and procedures, AIB has actively engaged and contributed its own expertise throughout Project preparation and will continue to do so during implementation. AIB contributes by bringing its own technical, due diligence, procurement and ES expertise, thereby complementing EBRD's role and ensuring adherence to the standards of both institutions. To reinforce quality and safeguard policy compliance, AIB will undertake at least one implementation support mission annually, with the frequency adjusted as needed.

5. Project Assessment

A. Technical

5.1. **Project Design.** The Aktobe-Karabutak-Ulgaisyn road section currently consists of a single carriageway with a width of 11-13 meters (m). The proposed technical solution for the Project is deemed appropriate considering the corridor's strategic importance, the prevailing physical and human geography and the need to significantly enhance the road network's resilience and safety. The existing Aktobe-Karabutak-Ulgaisyn road section has deteriorated. According to the EBRD consultant's review, the road section's average International Roughness Index is 8 m/km, indicating a lack of routine and periodic maintenance over the last decade or more. Highway structures are also generally in poor condition and substandard.

5.2. **Road Maintenance.** KAZHService LLC, a subsidiary of KazAutoZhol,²⁹ maintains all republican roads in Kazakhstan. Most maintenance activities prioritize emergency response and periodic maintenance, leading to insufficient routine maintenance. Maintenance activities are paid based on input rather than output and on the standard scheduled unit rates for each road category, approved by order of the Acting Minister of Investment and Development of the Republic of Kazakhstan dated June 17, 2015, No. 705. The maintenance budget allocation is decided without proper data support and is thus inadequate, resulting in the deterioration of pavement and structures and decreased service level. Under the Project, the DBM contract model will be adopted, with performance-based maintenance.

5.3. **Capacity and Traffic Demand.** The existing single carriageway is unable to meet the increasing traffic demand. A traffic survey conducted in 2024 indicated an average daily traffic volume of 6,574 vehicles along the road section, which exceeds the daily design capacity of the existing category III road of 1,000-3,000 vehicles. The proposed Project will save travel time, improve road safety by reducing the risk of head-on collisions, reduce vehicle operation costs and improve the climate resilience of the road.

5.4. The government has developed the preliminary design documentation for the Project, ensuring all highway design elements comply with national standards. These standards cover cross-sectional dimensions, design speed and horizontal and vertical design features. EBRD engaged an international consultant to conduct the lenders' technical due diligence of the available Project design and provide recommendations for enhancing its climate resilience and road safety features.

5.5. **Road Safety and Climate Risks.** Poor road conditions and insufficient overtaking opportunities have resulted in high accident rates on the Project road. In 2023, authorities registered 66 accidents, with 51 fatalities and 91 injuries, on the M-32 Highway section in Aktobe region. Considering its poor condition, expired service life, increasing traffic demand, as well as the region's harsh climate conditions that make the road highly vulnerable to extreme weather events, including heavy snowfall, flooding and extreme temperatures,

²⁹ KazAutoZhol took ownership of 100% capital of limited liability partnership "KAZHService" on April 17, 2023, based on the Resolution of the Government of the Republic of Kazakhstan dated Sep. 8, 2022 No. 670 "On certain issues of republican property", the decision of the Board of Directors of Joint Stock Company "National Company "KazAutoZhol" dated March 13, 2023 No. 90/23, and the order of the Committee dated March 20, 2023 No. 283.

reconstruction and upgrading of the road section are necessary to bring the road up to a condition that is both sustainable and capable of meeting existing and future demand.

5.6. Climate Adaptation and Road Safety Measures. The Project seeks to improve the climate resilience and safety of Kazakhstan's road network by modernizing outdated design standards and integrating international best practices. Climate adaptation measures include upgrading culverts, implementation of road and bridge drainage systems, elevating the road, use of sustainable road pavement materials and considering appropriate thermal expansion as well as the contraction at bridges. The existing road lacks adequate safety facilities and includes sections with potential safety hazards, such as limited sight distance and unsafe adjustments. The Project will therefore introduce adequate safety elements, such as guardrails, reflective road markers, lighting at critical areas, appropriate road signing and marking, a reduction in entry/exist points and avoidance of long straight alignments to minimize accident risks. These critical safety elements will be incorporated into the design of the Project.

5.7. There is no existing railway line in the corridor, nor are there any plans for railway construction in the future. The road is well-suited for short-distance freight transportation and door-to-door transport services for local manufactories, communities and villages while also accommodating long-haul traffic along the international corridor. For the predominantly short-haul and flexible transport needs, rail would not be a feasible alternative. Proposed road improvements will directly benefit local industrial development and economic growth in the Aktobe region. The planned road improvements under the Project are urgent and are not expected to cause any mode shifts in the corridor. Road and rail fundamentally serve different transport needs and provide distinct levels of service; hence, there is no competition between the two modes in the Project corridor.

5.8. Operational Sustainability. The government is fully committed to enhancing transport resilience, connectivity and safety along the Aktobe-Karabutak-Ulgaisyn road section. This Project aligns with national objectives to strengthen the transport network by addressing critical infrastructure gaps and fostering a more equitable and resilient infrastructure. This corridor upgrade is designed to improve the efficient movement of goods and people, reduce travel times and operating costs, enhance regional economic integration and promote industrial development and economic growth. The Project road will be tolled and the revenue is projected to be adequate in financing the operations and maintenance (O&M) of the Project road to ensure its sustainability.

5.9. Transition to DBM Contracting Model. The Project also supports the government's transition toward modern road construction and maintenance approaches by introducing DBM contracts. This marks a shift away from more traditional methods, which are prone to lead to delays and underfunding of maintenance. Through integrated design, construction and long-term maintenance contracts, the Project aims to ensure the road's condition and functionality beyond the construction completion. During the design phase, the contractor shall consider principles of efficient future maintenance to ensure sustainability of the road and reduce future maintenance costs. After one year of engineering design, a three-year construction period is envisaged, followed by a seven-year maintenance period. Maintenance will be carried out by

the works contractors based on the Law on Automobile Roads³⁰, Road Maintenance Rules of the Republic of Kazakhstan 2024 (PDS RK 2024), and Winter Maintenance Regulation of Public Roads (R RK 218-138-2017). Maintenance will be paid on a lump sum basis in monthly installments.

5.10. The DBM contract model provides a stronger legal foundation to formalize the government’s obligations with private sector contractors through a legally binding agreement. It ensures that sufficient maintenance funding is allocated in accordance with national standards and norms. This model represents a promising step toward addressing the issue of chronic underfunding for road maintenance in Kazakhstan through a more market-oriented approach. The DBM contract structure also creates strong incentives for contractors to apply innovative and advanced technologies to meet performance requirements, resulting in improved construction quality and maintenance practices. After the seven-year maintenance period of the DBM contractors, the responsibility for road maintenance can be transferred to KAZHService LLC. By that time, the expected growth in traffic and toll revenue on this road section will be sufficient to cover maintenance costs, thereby ensuring the road’s sustainability throughout the remainder of its service life.

B. Economic and Financial Analysis

5.11. **Economic Analysis.** A cost-benefit analysis (CBA) was carried out to assess the economic viability of the Project by comparing “with-project” and “without-project” scenarios. The economic internal rate of return (EIRR) and the economic net present value (ENPV) were calculated using a discounted cashflow analysis, assessing the Project’s economic and societal benefits against its costs over a 30-year period (2025-2054). The economic costs of the Project include capital expenditures on road rehabilitation and construction, as well as the associated O&M, including repair costs. The Project’s quantifiable economic benefits primarily include savings in vehicle operation costs (VOC) for various vehicle types using the road and value of time (VOT) savings for passengers. The analysis also includes additional greenhouse gas (GHG) emissions generated during the construction and operations period of the Project.

5.12. **Traffic Demand Analysis.** The traffic demand forecast is based on 2024 baselined traffic data obtained from QAJ’s branch in Aktobe, which provided a detailed average annual daily traffic (AADT) for the entire section of 963-1,025 km. In 2024, the number of average passenger car units (PCUs) per day was nearly 12,398. Specifically, the highest traffic number came from section 763-847 km with 17,740 PCUs. Then it dropped to 12,083 in section 847-981 km as distance to the city increases and down to 7,371 for section 981-1025 km. Using 2024 as base year, the demand analysis forecasts future traffic by linking it to various economic and population growth assumptions. The analysis assesses traffic for two vehicle types: light vehicles (LV) and heavy vehicles (HV). Table 4 shows the AADT traffic demand for selected years in line with the with-project scenario. Annex 3 has more details.

Table 4: Demand Forecast (PCUs)

	2025	2026	2027	2028	2029	2035	2045	2054
Section 763-847 km	9,309	9,644	9,992	10,352	11,163	13,763	18,372	22,111
Section 847-981 km	6,341	6,569	6,806	7,051	7,603	9,374	12,513	15,060

³⁰ Law of the Republic of Kazakhstan dated 07.17.01 No. 245-II.

Section 981-1025 km	3,868	4,007	4,152	4,301	4,638	5,719	7,634	9,187
AADT	6,506	6,740	6,983	7,235	7,802	9,619	12,840	15,453
Annual Growth, %	/	3.6%	3.6%	3.6%	7.8%	3.4%	2.5%	1.7%

5.13. **Economic Benefits and Costs.** The largest source of economic benefits is VOC savings, with a total economic value of USD2,603.1 million over the Project cycle. VOT savings are around USD1,590.8 million. Regarding costs, the total economic capital expenditure (capex) is USD900.6 million after adjusting for financial capex.³¹ O&M economic costs over the Project cycle are USD506.1 million. Total additional GHG emissions generated from construction and operations are monetarized as a cost item at USD55.7 million (presented in negative terms) using AIIB's carbon pricing for CBA.

5.14. **Results and Sensitivity Analysis.** The baseline EIRR is 19.7%, with an ENPV of USD676.1 million. Both indicators suggest the Project is economically viable. They also remain above the threshold (EIRR>9%, ENPV>0) in the extreme downside scenario where costs overrun by 30% and traffic falls by 30% at the same time.

Table 5: Sensitivity Analysis of EIRR

EIRR		Traffic Demand Change %					
Baseline	19.7%	-30%	-20%	-10%	10%	20%	30%
Cost Change %	-30%	19.3%	21.8%	24.2%	28.4%	30.3%	32.1%
	-20%	17.0%	19.5%	21.7%	25.7%	27.5%	29.2%
	-10%	15.1%	17.5%	19.6%	23.4%	25.2%	26.8%
	10%	12.0%	14.3%	16.3%	19.8%	21.4%	22.9%
	20%	10.7%	12.9%	14.9%	18.3%	19.9%	21.4%
	30%	9.6%	11.7%	13.6%	17.0%	18.5%	20.0%

Table 6: Sensitivity Analysis of ENPV

ENPV		Traffic Demand Change %					
Baseline	676.1	-30%	-20%	-10%	10%	20%	30%
Cost Change %	-30%	439.2	585.1	731.0	1022.8	1,168.7	1,314.5
	-20%	372.3	518.2	664.1	955.8	1,101.7	1,247.6
	-10%	305.4	451.3	597.1	888.9	1,034.8	1,180.7
	10%	171.5	317.4	463.3	755.1	901.0	1,046.9
	20%	104.6	250.5	396.4	688.2	834.1	980.0
	30%	37.7	183.6	329.5	621.3	767.1	913.0

5.15. **Financial Sustainability.** According to the preliminary financial analysis of the lenders' consultant, both FNPV and FIRR are negative, indicating that the Project is not financially viable. As a result, public investment, including sovereign-backed financing, is considered the most suitable financing approach for this significant road sector initiative. While the capital expenditures for the Project road will be funded via public budget, including sovereign-backed financing by AIIB and EBRD, in the long-term, the operational expenditure of the road following its completion is expected to be self-financed through toll revenues collected over its lifespan.

³¹ The total capex is adjusted from the total cost (KZT522,668.9 million) approved by PPP for the entire Project, not just AIIB or EBRD provided financing amount. This is to ensure the consistency between the scope of the benefits is commensurate with its corresponding costs.

This self-sustaining model is promoted by the Kazakhstan for road maintenance once the Project is completed.

5.16. Toll revenues for the rapidly expanding toll road network are managed and collected through the KazToll portal under a pooled system, overseen by the Directorate of Toll Roads within QAJ. In 2024, toll road income reached KZT48 billion (approximately USD93.5 million) and QAJ estimates collections will rise to KZT67 billion (USD131.0 million) in 2025. With the continued expansion of the toll section network and toll rate updates, the target is to collect KZT100 billion (USD196 million) in 2026. According to the feasibility study, the Aktobe-Karabutak-Ulgaisyn road will generate approximately USD10.9 million in toll revenue by 2030, which would be sufficient to cover its own maintenance cost once the road is operational.

C. Fiduciary and Governance

5.17. **Procurement.** In terms of institutional capacity, QAJ is carrying out around 10 ongoing or pipeline highway projects financed by nine international banks, including ADB, AIIB, EBRD, the World Bank and other bilateral banks. QAJ also serves as the project management entity for the Roads Committee (RC) in the ongoing World Bank-financed South-West Roads Project (SWRP) and the East-West Roads Project (EWRP) projects. As such, QAJ is familiar with procurement policy requirements and practices of ADB, EBRD and the World Bank. The PIU to be established for this Project will broadly consist of procurement staff/consultants with appropriate skills and experience in project procurement and contractual management following MDB procurement policy and practices. Therefore, it is assessed that QAJ has enough procurement and contract management capacity to carry out procurement and contract management for this Project with necessary professional support of the additional advance procurement support consultants, CSC and PMC, in construction supervision and contract administration.

5.18. With the support of the advance procurement support consultants for the Project, QAJ has formulated a fit-for-purpose Project-specific Procurement Strategy on the basis of analyzing the procurement packages and their responsiveness to technical, financial and managerial capacity of the potential contractors from the market, including local and foreign tenderers actively operating in Kazakhstan. This analysis has led to informed decisions on structuring proper works packages and contract modalities to ensure robust participation by tenderers. All large value works contracts will be procured through international open competitive tendering and subject to the procurement prior review by both banks. Consulting services contracts have also been packaged based on market research and engagement, with appropriate packaging in the scope of services, consultant capacity and dominant contracting market practices. Procurement strategic measures set forth specifically for the Project, including procurement packages, procurement method and procedures, contract modalities, etc. have all been reflected in the Project PP for the entire Project.

5.19. According to the PP, the Project includes (a) six DBM contracts using the FIDIC Yellow Book contract format, with cost estimates for each contract ranging from USD137 million to USD259 million and (b) at least four consulting services contracts, with cost estimates for each contract at no more than USD3 million. These consulting services contracts will be used for

implementation support and construction supervision of the execution of the six DBM work contracts.

5.20. EBRD standard procurement documents will be used with proper adaptations to ensure adherence to AIIB's special policy requirements as per the Co-financing Framework Agreement signed by AIIB and EBRD. According to the market survey, there is sufficient competition for such large value contracts with the wide presence of international contractors in the domestic contracting market. To test the market, a prequalification process for all road construction contracts was completed and a sufficient number of tenderers was prequalified and will be invited to submit bids. The procurement process for all those contracts will be subject to prior review by the EBRD team, in which the AIIB team will be proactively involved to enhance quality.

5.21. While the QAJ is experienced with traditional contracting models, the new DBM contract model necessitates advanced operational design, complex procurement procedures and tender evaluation and contract management skills. An assessment found several potential risks that may lead to potential implementation delay and unsatisfactory quality of contract deliverables, including (a) a lack of experience with the DBM contract model, which might affect the quality of the tender documents; (b) lengthy government internal procedures for review and approval in both procurement and design, as well as construction procedures and (c) a shortage of technical capacity for complex procurement. There is also an element of cost uncertainty as it is unclear how potential contractors will estimate and price the contractual risks associated with the DBM contract model.

5.22. To address these challenges, several proactive measures will be or have been implemented, including

- (a) Engaging advance procurement support consultants to prepare the prequalification document, technical specifications, as well as qualification and evaluation process.
- (b) Adopting a prequalification process to ensure an adequate number of capable tenderers could qualify and will be invited to participate in the tendering process to ensure competition.
- (c) Hiring CSC to supervise the execution of DBM contracts and engaging PMC to enhance the capacity of QAJ in project implementation.

5.23. **Financial Management.** Based on the discussion and documents reviewed, it was concluded that the project financial management system maintained by QAJ is acceptable to the Bank. As per roles designated by the Government of Kazakhstan, QAJ has been managing project implementation for other MDB-financed operations for years and has accumulated respective experience in financial management and disbursement. According to the roles and responsibilities assigned within QAJ, the PIU specialists from the Department of Finance and Budget Planning and the Department of Accounting and Reporting, with support of specialists from the External Loan Department, will be responsible for project financial management work, including but not limited to budget, accounting, financial reporting, payment and treasury and engaging project audit.

5.24. For contract payments, the documents will be prepared and verified by employer representatives from the Aktobe regional branch, then reviewed by financial staff in the

regional branch offices and then submitted to the Department of Finance and Budget Planning for registering in the system and filing hardcopies. Finally, they are passed to the Department of Accounting and Reporting for payment and recording in the corporate accounting system of 1C, which is commonly used in Central Asian economies, and capable of keeping financial transactions in dual currencies. As previously mentioned, QAJ is currently implementing around 10 projects financed by other development banks. All respective transactions are recorded in the accounting system without any separate profiles. The PIU will prepare Project financial statements in an Excel worksheet in the format required by the Bank. The records are reconciled with the accounting system to ensure data consistency. Project financial statements are subject to annual audit to make sure information is fairly and accurately presented.

5.25. According to the Project cost estimation and financing plan, the government will finance the around 12% of each component and the remaining cost will be co-financed by EBRD and AIIB. QAJ enters into a Trust Management Agreement with the State Property and Privatization Committee under the MOF and RC under the MoT. This agreement allows QAJ to act as an agent to implement the rehabilitation and reconstruction of specific road projects on behalf of the RC. All expenses related to this agent service will be reimbursed by the government from its budget. QAJ prepares the annual budget covering counterpart funding provision and repayment of exiting loans based on the Project implementation progress. The annual budget of the succeeding year is normally approved by MOF around August every year, but no later than December. During the year, the budget can be adjusted no more than four times to accommodate funding needs based on actual implementation progress and cost variation (for example, due to price inflation or foreign exchange fluctuation). Within the approved budget, QAJ makes payments from the VAT part to contractors from its Treasury Account.

5.26. QAJ follows domestic rules to recruit the Project auditor through an annual bidding process from the (MOF) government-accredited private accounting firm, financed by government funds. The Project and the entity's financial statements will be audited as per the Terms of Reference agreed by the banks. During the implementation period, such Audit Reports and Management Letters will be submitted to the Bank within six months after the end of the calendar year.

5.27. **Disbursements.** The loan proceeds will jointly finance various expenditures of goods, civil works, consultant services and incremental operating cost. All disbursement methods—advances, reimbursement, direct payment, special commitments—will be available. The primary method will be Advance. A Designated Account (DA) in the loan currency will be opened and managed by QAJ. The ceiling of the DA will be 20% of the loan amount and QAJ makes foreign exchange to local currency for contract payments and reports to the Bank to get replenishment following the requirements defined in the Disbursement Letter issued by the Bank.

5.28. **Financial Crime and Integrity (FCI) and Counterparty Due Diligence/Know Your Counterparty (CDD/KYC).** QAJ is an SOE, which was established in 2013 under the MoT, serving as the national operator for the primary Republican Road Network, including international transit roads. The KYC and required due diligence have been carried out and no substantial issue was identified.

5.29. Governance and Anti-corruption. Pursuant to the Co-financing Framework Agreement between AIIB and EBRD, each co-financier will apply to this Project their own anti-corruption framework, EBRD's Enforcement Policy and Procedures (2017), EBRD's Whistleblowing Policy (2020) and AIIB's Policy on Prohibited Practices (PPP, 2016). AIIB is committed to preventing fraud and corruption in the projects it finances. It places the highest priority on ensuring that projects are implemented in compliance with its PPP. The co-financiers will monitor the work related to tender document preparation, tender/proposal evaluation and contract awards under the financing. Implementation will be monitored regularly by the co-financiers. Each co-financier will promptly notify the other about any credible allegation or indication of prohibited practice, as defined in the respective anti-corruption frameworks, in connection with the Project. EBRD will lead any resulting investigation in accordance with its own anti-corruption framework and decision-making process, with AIIB assistance if the co-financier agree. Notwithstanding the above, AIIB will reserve the right to investigate, directly or indirectly through its agents, any alleged Prohibited Practices relating to the Project and to take and/or require the borrower to take necessary measures to mitigate the risk of such practices and address any issues in a timely manner, as appropriate.

5.30. Cybersecurity. The infrastructure financed is not considered Critical Infrastructure and does not present cybersecurity concerns.

5.31. Domestic Legal Context. Peer MDB experience in Kazakhstan suggests that a legal framework document, a Partnership Framework Agreement (PFA) between AIIB and the Republic of Kazakhstan, is required for stand-alone sovereign-guarantee operations to enable the application of AIIB's policies and procedures. AIIB has started PFA discussion with the government, good progress has been made and it is expected to take another 12 months for completion. This Project is able to rely on the EBRD Regional Office Agreement (RO Agreement), the Agreement Establishing the European Bank for Reconstruction and Development (AEB) and the co-financing agreement without AIIB entering the separate PFA first.

5.32. This Project will be jointly co-financed with EBRD, and EBRD's procurement, ES policies and project monitoring policies and practices will be applied. The government and EBRD have signed and ratified an RO Agreement that provided the basis for the application of EBRD's Procurement Policies and Rules in relation to any EBRD financed contracts (wholly or in part) for the delivery of goods, performance of work and/or rendering of services for entities within the state. EBRD's legal team further confirmed that the main basis for the application of the other EBRD policies is the AEB, which sets out the main principles applicable to EBRD activities. EBRD's policies are adopted in accordance with the principles and procedures set forth in the AEB and then applied to the financing provided by EBRD in line with the financing agreements signed between the EBRD and the relevant Borrower.

D. Environmental and Social

5.33. Environmental and Social Policy and Categorization. The Project will be jointly co-financed by AIIB and EBRD, with EBRD as the lead co-financier. To support a harmonized approach to addressing ES risks and impacts of the Project and as permitted under AIIB's Environmental and Social Policy (ESP), the EBRD Environmental and Social Policy (ESP) and

relevant Performance Requirements (PRs) are applicable for this Project in lieu of AIIB's ESP. AIIB reviewed EBRD's ESP and PRs and is satisfied that (a) EBRD's ESP and PRs are consistent with AIIB's Articles of Agreement and materially consistent with the provisions of AIIB's ESP, including the relevant ES Standards (ESS) and the Environmental and Social Exclusion List (ESEL) and (b) the monitoring procedures that are in place are appropriate for the Project. EBRD categorized the Project as Category A (equivalent to AIIB ESP's Category A) due to the scale and magnitude of the Project's ES impacts that can be avoided or mitigated by adhering to relevant ESSs, procedures and guidelines.

5.34. Environmental and Social Instruments. A site-specific Environmental and Social Impact Assessment (ESIA) and an Environmental and Social Management Plan (ESMP) have been prepared prior to Project Appraisal. A Land Acquisition and Resettlement Framework (LARF) was prepared during Project preparation and will guide the preparation of the project-specific Resettlement Plan (RP) based on the detailed technical designs. Potentially affected and interested stakeholders were identified as part of a Stakeholder Engagement Plan (SEP) preparation. The Labor Management Plan (LMP) was developed as part of the ESMP based on the proposed road upgrading works and estimated workforce requirements in past and ongoing projects. The above instruments were consulted upon and publicly disclosed by the client. The engineering design will be finalized by the DBM contractor during the early stages of implementation. Accordingly, the ES documents will be updated to align with the final design. A separate DBM contractor will be engaged for each section or segment and each will update the ES documents for their respective sections. The timeline for updating ES instruments will follow the sequencing of design finalization and construction, with priority given to sections scheduled for early works. Civil works cannot commence without the updated ES documents for the respective lot or segment or section. Based on the final design for each road section, the DBM contractors will also prepare Construction Environmental and Social Management Plans (CESMPs) and update other relevant ES instruments—such as the ESMP, RP and others—as necessary, prior to the start of construction. The Project will be supported through two financing tranches, with the updating of ES documents expected to take place under the first tranche. These ES documents will be reviewed by the CSC and cleared by the PIU, with support and recommendation from the PMC. The PT will review these ES documents and provide necessary feedback in the process of finalization. The ESIA has identified several areas for improvement, which will be addressed through the implementation of the Environmental and Social Action Plan (ESAP). The ESAP includes time-bound measures to improve ES management systems, labor practices, land acquisition procedures, stakeholder engagement and health and safety standards. The PMC will be recruited, which will employ one environmental specialist and one social development specialist to manage the ES risks and impacts for the Project. Additional ES staff will be recruited under the PMC to support QAJ's Aktobe regional branch and field supervision efforts (PMC Field Team) and CSC, as needed, before the civil works commence. The CSC will also be equipped with ESHS staff. The DBM contractors will also be required to engage qualified ES specialists. The lenders' Monitoring Consultant will periodically assess ES performance and compliance, in addition to regular monitoring by the PMC and supervision by the CSC ES teams. Independent assessments will be commissioned at AIIB's own resources, if needed.

5.35. ES Capacity. QAJ does not have a dedicated ES Unit. There is no ES specialist among the regular staff of QAJ and the Head of Maintenance has been designated as the Health and Safety (HS) focal point in addition to their regular maintenance-related responsibilities.

Although QAJ's in-house capacity to manage the Project's environmental and social (ES) risks and impacts is generally inadequate, it has demonstrated satisfactory performance in previous MDB-funded projects. This is largely because such MDB-funded projects typically support QAJ by engaging environmental and social consultants through PMC. Following this approach, this Project will recruit two teams of ES specialists under the PMC: one to support the central level (PMC HQ Team) and the other to support the Aktobe Regional Branch (PMC Field Team). The Client will recruit a DBM contractor for each section. Each DBM Contractor will also be required to include environmental, social and health and safety (ESHS) experts in their teams to provide day-to-day support at construction sites. DBM Contractors will implement site-specific ESMPs for each road section and report to the Construction Supervision Consultant (CSC) and PMC. The PIU will ensure that each DBM contractor has a qualified and experienced ES team, along with a contract-level functioning Environmental and Social Management System (ESMS), to effectively manage the ES risks and impacts of the contract. These must be in place prior to the commencement of civil works. In addition, capacity-building activities will be incorporated into the scope of both the PMC and CSC. The Project further aims to strengthen QAJ's ESMSs, labor practices, land acquisition procedures, stakeholder engagement processes and health and safety standards. The ESAP includes appropriate time-bound conditions to ensure strengthened capacity and functionality of the Client's and DMB contractors' ESMSs before the commencement of civil works.

5.36. Environmental Aspects. The Project's potential environmental risks and impacts primarily stem from the reconstruction and expansion of the existing M-32 Highway, including road widening, bypass construction, embankments, bridge, culverts, water-outlets, intersections, cattle crossings and associated and auxiliary infrastructure works. According to the Project's ES documents, key environmental risks and impacts include habitat loss and fragmentation, wildlife mortality (e.g., roadkill, construction encounters), disturbance to birds (nesting and foraging), noise and vibration, air and dust pollution, runoff and construction-related pollution (e.g., effluents, spills) and improper disposal of construction waste. While the Project does not traverse legally protected areas, Ramsar sites, or Key Biodiversity Areas, it may impact local biodiversity through habitat fragmentation, potential roadkill incidents and disturbances to wildlife movement. The corridor crosses open steppe landscapes with patches of shrublands, grasslands and vegetation planted along the roadside, which provide habitats for various birds and small mammal species. However, no critical habitats for endangered species have been identified along the alignment. Following the biodiversity assessment, a biodiversity management plan (BMP) has been prepared. The proposed mitigation measures include (a) minimizing vegetation clearance and avoiding it during bird breeding season from March to August, (b) protecting nesting areas and replanting native species, (c) avoiding nighttime construction and artificial lighting, (d) integrating wildlife crossings in the design and monitoring their use, (e) enforcing speed limits, (f) installing wildlife warning signs, (g) prohibiting hunting, (h) monitoring wildlife crossing points and adjusting measures as needed and (i) reviewing and updating the BMP based on monitoring data. Local small wildlife such as fox, hares and mice are generally active at night. Culverts, water outlets designed for extreme climate events, and cattle crossings are also expected to serve as wildlife crossings. Based on monitoring results, additional wildlife crossings may be provided if necessary. Mitigation measures in relation to noise impacts include (a) scheduling noisy activities to avoid sensitive hours; (b) maintaining equipment to reduce noise and implement noise control measures; (c) conducting baseline noise measurements and noise dispersion modeling during detailed design to identify areas at risk of exceeding standards and (d) considering possible

mitigation measures such as low-noise road surfacing, noise barriers or buffers and green landscaping near sensitive receptors. For mitigating air and dust pollution, the proposed measures include (a) water spraying and proper maintenance of vehicles and machinery, (b) establishing green buffer zones and (c) conducting regular air quality monitoring. Measures for mitigation of water and pollution concerns include (a) avoiding sitting near sensitive water bodies, (b) implementing spill prevention and drainage maintenance, (c) preparing a waste management plan, (d) ensuring hazardous waste is handled by trained personnel, (e) promoting reuse and recycling and (f) disposal of waste at authorized sites. During implementation, the ES documents, including the ESMP, will be updated to align with the final design and better address environmental concerns. The ES issues and concerns related to quarrying/borrowing, sourcing and transporting large volumes of construction materials, as well as impacts from auxiliary activities such as the operation of concrete batching plants, will be addressed during the updating of the ES documents. The locations and details of activities such as quarrying, borrowing and crushing plants are not yet known. However, they will be identified by the time the engineering design and cost estimates are finalized. These activities may contribute to increased dust emissions, fuel consumption, pollution and road safety risks. Certain sections of the Project are also characterized by high water tables, posing potential risks of surface and groundwater contamination and requiring careful drainage management. During implementation, the updating of ES documents—particularly the ESMP and its subplans—will incorporate measures to address these concerns based on the final design details. These measures may include optimized material sourcing, erosion control, pollution prevention and surface and groundwater protection. In addition, noise dispersion modeling needs to be conducted to inform the project design and, as needed, confirm a fit-for-purpose noise mitigation strategy and measures. Given the anticipated scale and nature of impacts, the Project has been categorized as Category A under EBRD’s ESP (equivalent to Category A under the AIIB’s ESF).

5.37. Social Aspects. The proposed Project is expected to generate positive social benefits for the local population, including improved travel conditions and road safety, reduced transportation costs, travel time and congestion. The reconstruction and upgrade (from two- to four-lanes) will result in adverse impacts associated with land acquisition, restrictions on land use and temporary impacts on businesses and trade outlets along the alignment during the construction works. The Project does not anticipate any physical displacement or livelihood impacts related to land acquisition as villages are located 0.5-2.0 km from the road. An estimated 60 people will be affected by the Project, mostly owners of state-owned land plots, a few businesses, industrial zones, farmers, tenants of pasturelands and others, etc. These impacts will be mitigated through the development and implementation of a Resettlement Plan (RP) in line with Resettlement Framework. While a preliminary project-specific RP is being prepared, resettlement arrangements will be managed by sections. Section-specific Land Management Plans (LMPs) will be prepared and implemented. Accordingly, multiple cut-off dates will be set for resettlement purposes. The socioeconomic survey started in late November 2024 and is ongoing to identify formal and informal land users and project-affected people (PAP) to inform RP and LMPs preparation. Multiple access and local connectivity impacts are requested by the local communities, which will be addressed by including several measures into the final design such as vehicular and pedestrian crossings, livestock corridors and potential overpasses. Close engagement with local communities will help define exact locations for each crossing and ensure that the detailed design will include all necessary

access elements, reflecting the local people's and road users' concerns and preferences. Design-based solutions avoided all cultural heritage sites and objects.

5.38. One of the sections (Segment 2) under construction is not considered an associated facility under EBRD's ESP. It should be noted that in this Project, AIIB is following the EBRD ESP as permitted in AIIB's ESF. The AIIB Project Team has conducted due diligence of Segment 2. No legacy issues were determined during the Bank's due diligence. The EBRD has a differing perspective regarding the assessment of Segment 2 as a linear project, contrasting with AIIB's approach. QAJ has completed all required national EIA and land acquisition actions in line with the national requirements and LMP prepared and implemented for this section. If needed, QAJ will commission an ES audit to address any ES legacy issues in line with the LARF prepared for the project. Conditions for triggering an ES Audit include evidence or credible allegations of: (a) pollution or environmental degradation; (b) health and safety incidents; (c) resettlement related outstanding complaints; (d) labor rights violations; (e) sexual exploitation and abuse (SEA) or sexual harassment (SH), labor and working conditions risks; (f) community grievances or opposition and any stakeholder complaints or whistleblower reports, often through a grievance redress mechanism (GRM) or external accountability mechanism (IAM).

5.39. The Project may require relocation of relevant utilities (power and telecom lines). Relevant mitigation measures are included in the ESIA/ESMP and will be cascaded to Contractors' ESMPs. Contractors will employ and supervise the subcontractors for utilities relocation.

5.40. Other social risks include community health and safety issues due to civil works, associated social tensions and gender-based violence and harassment (GBVH) risks to workers and communities during the construction and operations phases. During the construction phase, the communities or villages near the M-32 Highway may be exposed to health and safety risks associated with construction works, such as noise, waste, traffic safety, public safety (i.e., due to improper housekeeping, open excavation trenches, etc.), access restrictions to properties, etc. These risks are expected to be mitigated through the implementation of relevant measures incorporated in the ESMP and cascaded to the Construction ESMPs (CESMPs). The Contractors will prepare and implement a site-specific Noise and Vibration Management Plan, Community Health and Safety Plan, Traffic and Road Safety Plan, LMP, GBVH Action Plan and other plans as part of the CESMPs. These will detail the procedures and measures to prevent and manage the potential adverse impacts and risks.

5.41. Occupational Health and Safety (OHS), Labor and Working Conditions (LWC). The Project will involve construction-induced risks and impacts, including work-related accidents, mechanical and load-handling hazards, exposure to hazardous chemicals and materials, risks associated with the operation of heavy machinery, electric shock and extreme weather conditions. Additional risks include air quality issues from dust and emissions, noise and vibration exposure and road traffic hazards due to the movement of construction vehicles and equipment. Given the scale of construction activities, there is also a risk of vehicular accidents and road safety incidents affecting both workers and nearby communities. To mitigate these risks, the ESMP includes detailed occupational health and safety measures, which will be further integrated into the Contractors OHS Plan, Traffic Management Plan and site-specific Construction Environmental and Social Management Plans (CESMPs). The Project is

expected to employ a significant workforce, which may lead to labor influx-related risks, including potential tensions with local communities and additional pressure on public services. LWC will be managed through the implementation of an Labor Management Plan prepared as part of ESMP, which outlines measures to ensure safe working conditions, fair treatment of workers and compliance with national and international labor standards. Contractors will be required to implement and monitor OHS measures, conduct regular safety training and ensure adherence to proper protective equipment and emergency response protocols throughout the construction and operation phases. Road upgrading works are expected to bring a substantial workforce from various parts of Kazakhstan and an insignificant number of foreign workers. Construction-specific risks and impacts considered under the Project are related to the potential labor influx and consequent social tensions with the host communities. There could be potential issues related to LWC due to substandard working practices. Further, there could be community expectations for local employment that need to be managed. Potential risks related to labor influx may include crowding out of the existing basic services, which could impact the host community and public health issues (including gender-based violence and potential sexually transmitted diseases). The Contractor's labor practices during the construction phase will be managed through the inclusion of PR2 requirements into the ESMP and tendering documentation (hence, binding on Contractor and sub-contractors) and adding two labor audits of the project's entire workforce by the Supervision Engineer (one audit during the mobilization of the main workforce and the second one during the peak of construction season). The Contractor and QAJ, with PMC's support, will establish a worker grievance mechanism to handle workers' concerns.

5.42. Stakeholder Engagement, Consultation and Information Disclosure. An SEP was prepared to identify key stakeholders and define communication channels and engagement activities throughout the project cycle. A series of public consultation meetings were carried out along the alignment during 2022-2025, including ESIA public consultations. The main concern raised by people is the crossing points and livestock corridors at various junctures of the future road and these will be addressed in the final design. During resettlement activities, QAJ, supported by local governments, will utilize a diverse range of existing channels at the local level to consult with PAPs and address their concerns. During construction, the contractors will be required to regularly conduct consultations with the local communities and report their findings to QAJ monthly. The ES instruments mentioned in paragraph 5.34 of the PD were disclosed in English and the local languages (Russian and Kazakh) on QAJ's³² and co-financier's websites³³. These links have been disclosed on the Bank's website.³⁴

5.43. Project Grievance Redress Mechanism (GRM). QAJ has an operational grievance mechanism already in place to address issues related to resettlement, ES issues and information sharing. SEP includes a detailed description of the Project-level grievance mechanism, which will be available at the national and local levels. The mechanism allows grievances to be submitted through multiple channels, including in-person, via phone, email or through the websites of QAJ and the respective local governments (*Akimats*). Grievance forms will also be available at local *Akimat* offices and project sites. Complaints received at the local level, such as through the *Akimats* or community leaders, will be forwarded to the

³² QAJ. 2025. <https://ru.qaj.kz/news/obyavleniya-polzovatelyam/3071/>.

³³ EBRD. What we do. Projects. Aktope Regional Roads. <https://www.ebrd.com/work-with-us/projects/esia/aktobe-regional-roads-project.html>.

³⁴ AIIB. [2Kazakhstan: Reconstruction of M-32 Highway Aktope-Karabutak-Ulgaisyn Section Project](#).

QAJ/PIU for further processing with support from PMC. If a grievance remains unresolved, complainants will be advised on further steps, including legal recourse under Kazakhstan's legal framework. The Worker GRM will also be established and communicated to all project workers through written and verbal communication.

5.44. Independent Accountability Mechanism. The Project will apply EBRD's independent accountability mechanism, the Independent Project Accountability Mechanism (IPAM), in lieu of AIIB's PPM. IPAM will review, in accordance with the EBRD Project Accountability Policy, all requests regarding environmental and social issues that may arise under the Project. Consequently, in accordance with AIIB's Policy on PPM, submissions to the PPM under the Project will not be eligible for consideration by the PPM. Information on EBRD's IPAM is available at <https://www.ebrd.com/project-finance/ipam.html>.

5.45. Monitoring and Supervision Arrangements. QAJ will be responsible for the coordination, supervision and monitoring of the Project in compliance with the EBRD's ESP and PRs and management of the project-level GRMs. QAJ will submit annual monitoring reports based on the agreed format to EBRD and AIIB. The ES team of PMC at QAJ headquarters will conduct periodic ES monitoring, while the ES team of PMC at Aktobe Regional Branche will carry out regular day-to-day supervision. The DBM Contractors will implement ES mitigation measures and maintain logs of ES actions, issues, impacts, mitigation and monitoring data. The Lenders' Monitoring Consultant will periodically assess ES performance and compliance and independent assessments may be commissioned if needed. The AIIB ES team will retain its rights to conduct field supervision, through the implementation support mission every year, or separate missions as needed.

E. Climate Change

5.46. Paris Alignment. The Project comprises four components, the main one is the reconstruction and upgrade (from two to four lanes) of a 234-kilometer road section of the M-32 Highway, starting from the city of Aktobe, through Karabutak to Ulgaisyn in the Aktobe region of Kazakhstan, to up-to-date standards in climate resilience and road safety. The Project is assessed as aligned with the mitigation and adaptation goals of the Paris Climate Agreement in line with AIIB methodology.

5.47. Climate Finance. The Project is classified as a climate adaptation type 1 (adapted project), with primarily structural measures implemented. According to AIIB's proportional approach, which is based on the Joint MDB methodology for tracking climate adaptation finance, 15% of the EPC cost financed by AIIB can be allocated to climate adaptation finance. This amounts to USD66.2 million, which is 15% of the total EPC cost of USD441.3 million. The Project does not qualify as climate mitigation finance.

5.48. Total climate finance of the Project would be USD66.2 million, equivalent to 14.7% of AIIB's investment.

5.49. GHG assessment. The consultant estimated that the Project will increase GHG emission by 22,450 tons per year on average during the operational lifetime plus construction period. The GHG assessment considers the existing traffic emissions for the baseline scenario

and the sum of the construction (scopes 1, 2 and 3) and new traffic emissions for the with-project scenario.

F. Gender Aspects

5.50. Gender-based occupational segregation is high in Kazakhstan due to the exclusion of women from 287 occupations before the Labor Code reforms in 2022. A 2024 sample of 12 road construction companies operating in Kazakhstan indicated that the road construction sector exemplifies this gender divide. It remains male-dominated, with women occupying less than 6% of highly skilled technical roles such as road engineers, laboratory engineers and surveyors. The challenges construction companies face in recruiting women are multifaceted and include working conditions, distance from homes and prevailing social norms that discourage women from pursuing careers in construction. The ESAP includes specific measures to promote women representation. The contractors will prepare and implement Local Employment and Procurement Plans to improve female representation within their workforces.

5.51. GBVH remains a critical issue in Kazakhstan, with rural areas being particularly vulnerable due to cultural norms and lower access to support services. According to a 2022 report by UN Women, 21% of women in Kazakhstan reported experiencing some form of GBVH. In Aktobe Region, over 1,500 cases of GBVH were reported in the last five years, with many cases occurring in rural districts. The local governments have partnered with non-government organizations to increase awareness and support victims through hotlines and counseling services, though more resources are needed to address this issue effectively. Given the large influx of labor in the region, GBVH cases may arise during the construction phase. Female workers and/or community members could face harassment at their workplace or near Project sites, potentially becoming victims of inappropriate or indecent behavior. To mitigate these risks, the Contractor(s) will develop and implement GBVH Action Plan(s), outlining specific measures to address and manage GBVH risks and impacts throughout the Project. QAJ will also develop and implement the GBVH Policy with the procedure for reporting incidents.

G. Risks and Mitigants

Table 5: Summary of Risks and Mitigating Measures

Risk Description	Assessment (H/M/L)	Mitigation Measures
Project Preparation Risks		
Technical designs		
<ul style="list-style-type: none"> Introducing the integrated design, build and maintenance (DBM) contracts through the FIDIC Yellow Book Contract format. Design can only be available in the first year of implementation, which may lead to uncertainty and require higher capacity in project management. 	H	<ul style="list-style-type: none"> Advance Procurement Support Consultants were engaged to provide direct support to QAJ in the procurement document preparation and processing. AIIB engaged an experienced senior technical advisor to support the team in the preparation, assessment and monitoring, quality of design, operational activities, implementation of critical aspects of DBM contracting and performance-based maintenance. The experience and lessons learned from ongoing similar AIIB projects in Kazakhstan, such as the Karagandy-Jezkazgan road improvement project co-financed with the World Bank, will benefit this Project.
Project Implementation Risks		
Implementation capacity		
<ul style="list-style-type: none"> Lack of experience in DBM contracts. 	M	<ul style="list-style-type: none"> Component 2 is designed to finance a CSC to support QAJ in supervision. Component 3 is designed to finance a Project Management Consulting firm to support PIU in daily implementation management. EBRD and AIIB will hire a lender's implementation monitoring consultant to carry out close monitoring and reporting during Project implementation. AIIB will intervene with support in a timely manner when it is needed.
Land acquisition and resettlement		
<ul style="list-style-type: none"> Given the anticipated length of the corridor to be upgraded, the potential impacts are associated with land acquisition and restrictions on land use during construction. 	H	<ul style="list-style-type: none"> A draft LARF has been prepared and disclosed. The RP will be prepared and implemented before the commencement of civil works. QAJ employs and implements LMPs for each section to inform the RP.
Financial management		
<ul style="list-style-type: none"> Lack of experience in implementing AIIB-financed project, particularly the co-financier, EBRD, does not have FM function, AIIB needs to closely manage 	M	<ul style="list-style-type: none"> Project FM-related arrangement will be documented with the support from PMC. PT will collaborate closely with the EBRD team to compare notes and share the information during the monitoring of the project implementation.

Risk Description	Assessment (H/M/L)	Mitigation Measures
and monitor the FM performance on a stand-alone basis.		
Procurement of large and complex packages		
<ul style="list-style-type: none"> ▪ Lack of experience in pilot application of a complex DBM contract modality in Kazakhstan may lead to procurement delay and unsatisfactory project quality of the project due to <ul style="list-style-type: none"> (a) Lack of experience with DMB contracting. (b) Potential low competition due to the high level of qualification. (c) Shortage of technical capacity to carry out procurement and contract management. 	H	<p>To address those challenges, the following measures were/will be taken:</p> <ul style="list-style-type: none"> (a) Adopt a prequalification process to ensure a sufficient number of capable tenderers have been prequalified and invited to submit tenders. (b) Provide advance procurement support through the engagement of international consultants to prepare the procurement documents and administer the procurement process. (c) Ensure close supervision and support in procurement and contract execution of all works contracts by EBRD and AIIB through procurement prior to review and field missions. (d) Leverage the experiences gained and lessons learned from the Karagandy-Jezkazgan road improvement project co-financed by the World Bank.
ES risks and impacts during construction and operation		
<ul style="list-style-type: none"> ▪ Weak institutional capacity of QAJ to manage risks and oversee ES and OHS compliance. 	M	<ul style="list-style-type: none"> ▪ QAJ will hire relevant, experienced ES staff and experts through PMC. Additional ES staff will be recruited under CSC before civil works commence. The DBM contractors will also be required to engage qualified ES and OHS specialists. In addition, ES capacity building activities will be implemented during the implementation.
Legal risks		
<ul style="list-style-type: none"> ▪ Absence of the PFA between AIIB and the Government of Kazakhstan. 	L	<ul style="list-style-type: none"> ▪ The EBRD PFA is ratified. ▪ As a standard condition of effectiveness, AIIB's Loan Agreement and the Guarantee Agreement will require a legal opinion from QAJ and the Guarantor to certify that the Loan Agreement and the Guarantee Agreement are legally binding on QAJ and the Guarantor, respectively, with that, the absence of the AIIB's PFA's risk will be mitigated.

H = High, L = Low, M = Medium.

6. Next Steps

Milestones	Actual or Expected Completion Dates
Screening	Aug. 13, 2024
Concept Review	March 5, 2025
Appraisal Mission	May 19 - 23, 2025
Project Appraisal	June 25, 2025
Negotiation	Aug. 10-11, 2025
President Approval	October 2025
Loan Signing - 1st Loan Tranche	November 2025
Loan Signing - 2nd Loan Tranche	Q1 2026
Effectiveness	TBD
First Disbursement	TBD

Annex 1: Results Monitoring Framework for the Project

Project Objective (PO):	To provide safe, efficient and climate-resilient connectivity along the Aktobe-Karabutak-Ulgaisyn section of the M-32 Highway in Kazakhstan's Aktobe region.									
Indicator Name	Unit of Measure	Baseline Data 2024	Cumulative Target Values					End Target 2030	Frequency	Responsibility
			2025	2026	2027	2028	2029			
Project Objective Indicators:										
1. Average travel time along the section.	minute	224	-	-	-	-	-	143 ³⁵	Annual	QAJ
2. Climate adaptation measures incorporated into road design of M-32 Highway.	Yes / No	No	Yes	Yes	Yes	Yes	Yes	Yes	Annual	QAJ
3. AADT along the Aktobe-Karabutak-Ulgaisyn section (Passenger Car Unit [PCU]).	PCU	12,398	-	-	-	-	-	15,914	Annual	QAJ
4. Improvement of International Roughness Index (IRI).	number	8	-	-	-	-	-	<=4	Annual	QAJ
5. Road safety improvement along the Aktobe-Karabutak-Ulgaisyn section expressed as iRAP rating or equivalent.	number	1	-	-	-	-	-	3	Annual	QAJ
6. Population along Aktobe-Karabutak-Ulgaisyn section with better road access (women only).	number	0	0	0	0	0	0	579,000 (281,000)	Annual	QAJ
Intermediate Results Indicators:										
1. Length of Aktobe-Karabutak-Ulgaisyn road section rehabilitated and improved.	Kilometers	0	0	0	0	0	0	234	Annual	QAJ

³⁵ With the Project, the road's design speed is raised from 70 km/h to (120 km/h+100 km/h) / 2 = 110 km/h, leading to an average travel time along the project section of 2.38 hours or 143 minutes.

Project Objective (PO):	To provide safe, efficient and climate-resilient connectivity along the Aktobe-Karabutak-Ulgaisyn section of the M-32 Highway in Kazakhstan's Aktobe region.									
Indicator Name	Unit of Measure	Baseline Data 2024	Cumulative Target Values					End Target 2030	Frequency	Responsibility
			2025	2026	2027	2028	2029			
2. A Gender-Based Violence and Harassment (GBVH) Policy with procedures for reporting on incidents is developed and implemented.	Yes / No	No	-	-	Yes	Yes	Yes	Yes	Annual	QAJ
3. Increase of annual toll collection from the Aktobe-Karabutak-Ulgaisyn section once the Project is completed.	USD million	0	-	-	-	-	-	10	Annual	QAJ

Annex 2: Economic and Financial Analysis

A. Economic Analysis

1. **General.** Economic analysis or cost-benefit analysis (CBA) aims to identify and quantify key economic benefits and costs associated with the Project. CBA for the Project identifies the benefits and costs of rehabilitating and upgrading the entire section starting from 963 kilometers (km) through the ending at 1,025 km (total length is 262 km). The proposed rehabilitation will improve the local road quality, therefore generate savings in value of time (VOT) and vehicle operation cost (VOC). These benefits all come from forecasting non-incremental traffic demand of the involved local roads in both regions. The Project also generates incremental traffic demand, which is used to assess the additional greenhouse gas (GHG) emissions as a cost item in CBA.

2. The CBA is carried out by using the discounted cash flow (DCF) to obtain the economic internal rate of return (EIRR) and the economic net present value (ENPV) for the proposed investments linked with the Project. This is followed by a standard sensitivity analysis that tests the viability of EIRR and ENPV under optimistic and pessimistic scenarios of traffic and cost projections. Social discount rate in this analysis is 9%.

3. **Analytical Framework.** The CBA calculations are based on the net benefits and costs, by comparing the with- and without-project scenarios described here.

- **Without the Project:** This scenario simply means the financed local roads will remain the status quo 2-lane without major rehabilitation in the future. Traffic demand in terms of average annual daily traffic (AADT) will grow along with income level, population and gross domestic product (GDP) total. However, due to poor road surface conditions, all types of vehicles currently traveling on these local roads suffer from much slower driving speed (70 kilometers per hour [kph]) and higher operating costs. Local feasibility analysis suggests that with this growth trajectory, the Project Road sections will exceed its current capacity of 32,000 passenger car units (PCU) per day soon. According to the technical consultant, the existing International Roughness Index (IRI) is around 8 meters per kilometer (m/km).
- **With the Project:** The rehabilitation will significantly improve the local road conditions by resurfacing, widening (to four-lane) and strengthening the climate resilience. With enhanced road capacity and better safety measures, the speed is expected to increase to 120 kph for light vehicles (LVs) and 100 kph for heavy vehicles (HVs). The average IRI after the Project will aim to reach 3 m/km, given the design and materials used. These improvements will lead to lower unit VOC and shorter driving time. Non-incremental traffic in terms of PCU will keep growing at the same rate as without the Project, but it will no longer be restricted under the old 32,000 PCU capacity limit.

4. **Economic Costs.** Economic capital expenditure (capex) costs (Table A2.1) are adjusted from the total cost approved by the government (KZT522,668.85 million) by excluding VAT and other taxes. After adjustment, the economic capex is USD900.59 million. It is equally distributed across the four construction years. For O&M, interviews with local consultants suggest that KZT5.8 million is needed annually for regular maintenance of a one-kilometer road. Meanwhile, the Project will need major repairs every seven years, which costs about

KZT68,917 million each time. This leads to around USD3.14 million for regular maintenance and USD145.66 million for each major repair.

Table A2.1: Economic Capex

Year	2026	2027	2028	2029	Subtotal
Financial Cost (USD million, incl. VAT & 10% contingencies)					
	273.35	273.35	273.35	273.35	1093.40
Economic Cost (USD million, excl. VAT and other taxes)					
	225.15	225.15	225.15	225.15	900.59

5. **Economic Benefits Identification Approach.** Approaches to identify and quantify benefits are based on consultations with the feasibility study team, literature of similar airport projects done by other MDBs and various databases providing essential parameters to the estimates. The quantified benefits are summarized in Table A2.2.

Table A2.2: Identified Economic Benefits

Benefits: Non-incremental demand
VOT savings: Average driving speed will increase from 70 to 120 kph (LVs) or 100 kph (HVs) after the Project due to the smoother road surface and safer road design.
VOC savings: IRI of the Project roads will improve from eight to three after the Project, assessed by the technical consultants. Accordingly, unit VOC will be reduced per vehicle based on local feasibility consultant's assessment.

6. **AADT Traffic Demand and Key Assumptions.** The CBA assumed one year of design in 2025, four years of construction (2026-2029) and 25 years of operations (2030-2054). Below are the key assumptions used in the analysis:

7. **AADT and PCU Traffic Demand Forecast.** Based on the baseline data input AADT in 2024, AADT is forecasted assuming LVs will grow at the real GDP growth of Kazakhstan adjusted by an elasticity-GDP growth factor of 0.8. Similarly, HVs are expected to grow at real GDP growth, with an elasticity factor of 1. Growth assumptions are drawn from the International Monetary Fund (IMF) World Economic Outlook (October 2024) and EBRD, with downward adjustments in later years assuming all growth will converge at slower pace. Below shows the forecasted average AADT in the with-project scenario. Overall, LVs and HVs account for half of the total AADT, respectively. PCU demand forecast is then derived, assuming PCU factors for LV is 1 and HV is 3. Table A3 presents selected results for PCU forecast.

Table A2.3: AADT and PCU Forecast
AADT

Year	Section 763-847 km	Section 850-981 km	Section 974-1159 km
2025	9,309	6,341	3,868
2026	9,644	6,569	4,007
2027	9,992	6,806	4,152

2028	10352	7051	4301
2029	11163	7603	4638
2035	13763	9374	5719
2045	18372	12513	7634
2054	22111	15060	9187

PCU

Year	Section 763 - 847 km	Section 847 - 981 km	Section 981 - 1,025 km
2025	18,667	12,714	7,756
2026	19,377	13,198	8,051
2027	20,113	13,700	8,357
2028	20,878	14,221	8,675
2029	21,673	14,762	9,005
2030	22,498	15,324	9,348
2035	27,048	18,423	11,238
2045	36,707	25,002	15,252
2054	44,643	30,407	18,549

8. **VOC Assumptions.** The local consultant provided data on VOC savings. These estimates are based on a 2009 Asian Development Bank (ADB) technical assistance project³⁶ in Kazakhstan, then forecasts to 2024 price levels using IMF inflation data between 2009 and 2024. Note that the VOC savings turn negative from the year 2048 due to the additional traffic demand in the with-project scenario. In the without-project scenario, the total PCU is capped at 32,000 PCU/day, while the with-project scenario PCU can reach beyond this old capacity limit. The additional traffic between the two scenarios lead to negative VOC savings in later years, as they add VOC that would not exist in the without-project scenario. The unit VOC savings applied in the analysis are presented in Table A2.4.

Table A2.4: Unit VOC Savings (USD/vehicle-km)

VOC USD/vkm	Existing (IRI=8)			Motorway (IRI=3)		
	Cars	Bus	Truck	Cars	Bus	Truck
	1.20	2.29	5.14	1.09	1.92	4.68

Source: Local consultant estimates.

9. **VOT Assumptions.** The Project is assumed to increase the average speed from 70 kph to 120 kph for LVs and 100 kph for HVs. This leads to time savings per kilometer travelling along the Project road sections. Other VOT assumptions include hourly wage per passenger (KZT2,661 in 2025) and an average vehicle occupancy of 1.7 persons. Multiplying these assumptions with the total PCU yields the VOT benefits. The VOT Assumptions applied in the analysis are presented in Table A2.5 and A2.6.

³⁶ ADB. 2009. Technical Assistance to the Republic of Kazakhstan for the Aktau–Beineu Road Project. Manila

Table A2.5: VOT Assumptions

Section	Distance (km)	Average Speed (kph)			Average Travel Time (hour)		
		Without Project	With Project: LV	With Project: HV	Without Project	With Project: LV	With Project: HV
Section 763 - 847 km	84	70	120	100	1.20	0.70	0.84
Section 850 - 981 km	134	70	120	100	1.91	1.12	1.34
Section 974 - 1025 km	44	70	120	100	0.63	0.37	0.44

Table A2.6: VOT Assumptions, 2025

Monthly wage in USD	992
Total working hours per month	160
Per hour wage per capita in KZT	2,661
Average vehicle occupancy	1.7

10. **GHG.** It is estimated that the Project will generate a net 22,450 tons of carbon dioxide (CO₂),³⁷ comparing the with- and without-project scenarios. This estimation largely includes the Scope 3 emissions during operations. Multiplying it with AIIB carbon prices yields the net negative GHG as a benefit item in the CBA.

11. Baseline EIRR is 19.7%, with ENPV at USD676.1 million. Both indicators suggest the Project is economically viable. Both indicators are above the threshold (EIRR>9%, ENPV>0) in extreme scenarios where costs overrun by 30% and traffic goes down by 30% at the same time. The Sensitivity Analysis results are presented in Table A2.8.

Table A2.7: Economic Benefits and Costs (USD million)

	VOC	VOT	GHG	Total Benefits	Capex	O&M	Total Costs	Net Benefits
2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2026	0.00	0.00	0.00	0.00	225.15	0.00	225.15	-225.15
2027	0.00	0.00	0.00	0.00	225.15	0.00	225.15	-225.15
2028	0.00	0.00	0.00	0.00	225.15	0.00	225.15	-225.15
2029	0.00	0.00	0.00	0.00	225.15	0.00	225.15	-225.15
2030	193.05	39.75	-1.68	231.11	0.00	3.14	3.14	227.97
2031	200.73	42.13	-1.73	241.13	0.00	3.14	3.14	237.99
2032	208.72	44.66	-1.75	251.62	0.00	3.14	3.14	248.48
2033	217.02	47.34	-1.80	262.56	0.00	3.14	3.14	259.42
2034	225.44	50.10	-1.84	273.71	0.00	3.14	3.14	270.56
2035	233.97	52.95	-1.89	285.04	0.00	3.14	3.14	281.89
2036	242.58	55.88	-1.93	296.53	0.00	145.66	145.66	150.87
2037	251.27	58.88	-1.98	308.17	0.00	3.14	3.14	305.03
2038	260.02	61.94	-2.02	319.94	0.00	3.14	3.14	316.80
2039	268.82	65.05	-2.07	331.81	0.00	3.14	3.14	328.66

³⁷ See the GHG assessment in Annex 4: Paris Agreement Alignment and Climate Finance

	VOC	VOT	GHG	Total Benefits	Capex	O&M	Total Costs	Net Benefits
2040	277.65	68.21	-2.11	343.74	0.00	3.14	3.14	340.60
2041	245.04	69.15	-2.16	312.03	0.00	3.14	3.14	308.89
2042	206.26	69.71	-2.20	273.77	0.00	3.14	3.14	270.63
2043	167.59	70.22	-2.25	235.57	0.00	145.66	145.66	89.91
2044	129.11	70.69	-2.29	197.51	0.00	3.14	3.14	194.36
2045	90.90	71.11	-2.36	159.65	0.00	3.14	3.14	156.50
2046	53.04	71.48	-2.40	122.12	0.00	3.14	3.14	118.98
2047	15.62	71.82	-2.45	84.99	0.00	3.14	3.14	81.85
2048	-21.28	72.11	-2.51	48.32	0.00	3.14	3.14	45.18
2049	-57.57	72.38	-2.56	12.26	0.00	3.14	3.14	9.11
2050	-93.16	72.62	-2.63	-23.16	0.00	145.66	145.66	-168.82
2051	-127.97	72.83	-2.69	-57.83	0.00	3.14	3.14	-60.97
2052	-161.92	73.00	-2.75	-91.67	0.00	3.14	3.14	-94.81
2053	-194.91	73.13	-2.81	-124.59	0.00	3.14	3.14	-127.73
2054	-226.87	73.68	-2.87	-156.06	0.00	3.14	3.14	-159.21

Table A2.8: Sensitivity Analysis

EIRR		Traffic Demand Change (%)					
Baseline	19.7	-30	-20	-10	10	20	30
Cost Change (%)	-30	19.3	21.8	24.2	28.4	30.3	32.1
	-20	17.0	19.5	21.7	25.7	27.5	29.2
	-10	15.1	17.5	19.6	23.4	25.2	26.8
	10	12.0	14.3	16.3	19.8	21.4	22.9
	20	10.7	12.9	14.9	18.3	19.9	21.4
	30	9.6	11.7	13.6	17.0	18.5	20.0

ENPV (USD million)		Traffic Demand Change					
Baseline	676.1	-30%	-20%	-10%	10%	20%	30%
Cost Change	-30%	439.2	585.1	731.0	1022.8	1168.7	1314.5
	-20%	372.3	518.2	664.1	955.8	1101.7	1247.6
	-10%	305.4	451.3	597.1	888.9	1034.8	1180.7
	10%	171.5	317.4	463.3	755.1	901.0	1046.9
	20%	104.6	250.5	396.4	688.2	834.1	980.0
	30%	37.7	183.6	329.5	621.3	767.1	913.0

B. Financial Analysis of QAJ

Company Introduction

12. QAJ (The “Company”) was formed in March 2023 pursuant to a Resolution of the Government of Kazakhstan dated Feb. 1, 2023. The government is the Company's sole shareholder, represented by the State Property and Privatization Committee (SPPC) under the Ministry of Finance (MoF). The state body exercising ownership and usage rights over 100% of QAJ's state-owned shares—based on the relevant acceptance certificate—is the Committee of Roads under the Ministry of Transport (MoT).

13. According to QAJ's Charter, the principal activities of the Company are:
- (a) Implementation of budget-funded investment projects for the development of public motorways of international and republican significance, based on the state assignment.
 - (b) Organization of the design, construction, reconstruction, repair and maintenance of public roads of international and republican significance under the state assignment.
 - (c) Oversight of the progress and quality of construction, reconstruction, repair and maintenance of public roads of international and republican significance under the state assignment.
 - (d) Trust management of toll roads.
 - (e) Elimination of faults that hinder uninterrupted and safe passage of vehicles on toll roads.
 - (f) Collection of tolls for the use of toll roads.

Business Model

14. QAJ derives revenue from the provision of services on:
- (a) Organizing the construction, reconstruction, repair and maintenance of public roads of international and republican significance either under the state assignment or through attracted investments.
 - (b) Collection of tolls and operation of toll road operations (including maintenance and repair).
 - (c) Maintenance services for roads.

15. In general, all republican roads are owned by the SPPC MoF, on behalf of the government. When reconstruction or rehabilitation is required, QAJ enters into a Trust Management Agreement (TMA) with the SPPC MoF and the Road Committee that governs:

- (a) the transfer of assets from SPPC MoF to QAJ, to the Contractor and back, as needed and
- (b) the reimbursement of expenses related to the provision of above services. Under the TMA, QAJ acts as the Agent, while the Road Committee serves as the Principal.

16. Following internal procedures to move forward with the development of the road project under the state guarantee, the QAJ submits a budget request to the MoF via MoT. Once approved, the TMA is signed between three parties. Under the TMA, QAJ signs a monthly compensation act with Road Committee, which allows for the reimbursement of all expenses. Following this, QAJ uses the reimbursed funds to pay counterparties and service and repay the principal on the bank loans.

17. To service non-state loans under the state guarantee, Budget Program 233 "Fulfillment of obligations under a trust management contract," has been created. To implement the loan repayment mechanism under the TMA, amendments were made to several legal instruments, including:

- (a) The Budget Code of the Republic of Kazakhstan.
- (b) The Rules for Transferring State Property to Trust Management, approved by Order No. 17 of the Minister of National Economy.
- (c) The Rules for Execution of the Budget and its Cash Services, approved by Order No. 540 of the MoF.

Historic Performance

18. Assets. According to the QAJ's most recent audited financial statement (Table A2.10), the total asset of the Company increased to USD2.9 billion as of Dec. 31, 2023, compared to USD2.5 billion a year earlier. Most assets (84%) are classified as non-current. Notably, around 64% of these non-current assets consist of non-current trade and other receivables. These are long-term receivables related to the reimbursement for the repayment of state-guaranteed loans under the TMA.

19. QAJ primarily serves as a financial intermediary between the SPPC MoF and engineering, procurement and construction (EPC) contractor(s), with limited direct ownership of republican roads. This is evidenced by the minimal value of property, plant and equipment, recorded as USD2.6 million. This small amount of tangible assets underscores QAJ's role as Agent rather than owner of road assets.

20. Liabilities. As of Dec. 31, 2023, total liabilities had increased by 11% to USD2.9 billion over the previous year, due to additional borrowing. Long-term financial debt³⁸ forms a substantial portion of QAJ's liabilities, amounting to approximately USD2.1 billion, with most debts maturing in 2038-2039. About 77% of QAJ's financial debt is owed to the Export-Import Bank of China (Exim Bank), making it the Company's largest creditor. The remaining debt is sourced from EBRD and ADB. All financial loans are backed by a state guarantee. It is important to note that previous World Bank-financed projects are directly funded by the MoF and do not appear on QAJ's financials. This exclusion underscores the evolution of financing mechanisms for different road projects.

21. Equity. As of Dec. 31, 2023, shareholder's equity considerably improved from negative USD140 million to negative USD40 million thanks to a positive net income recorded in the same year as well as the accession of KazhService LLP (increase in equity by USD56 million), formerly named as Kazakhavtodor LLP, which was owned by SPPC MoF.

22. Profitability. QAJ recorded USD46 million net profit in 2023, largely driven by an accounting gain resulting from the revaluation of QAJ's financial debt. As most of these long-term loan obligations are denominated in USD, the strengthening of the KZT in 2023 reduced the value of these obligations when converted to local currency. This revaluation gain was significant enough to contribute to a positive net profit for the year.

23. As of June, 2025, 25 toll road sections are operational in Kazakhstan, covering a total length of 4,760 km. This includes 12 sections of the first technical category spanning 2,231 km and 13 sections of the second and third technical categories covering 2,529 km.³⁹ In 2024, QAJ collected a total of USD93.5 million in toll revenue (in 2023 it was USD68.9 million).⁴⁰ In 2025, the Company anticipates USD117 million, increasing to USD196 million in 2026. To support this projected revenue growth, QAJ will further expand the toll network to cover 11,000 km by 2030 and implement incremental toll rate increases (around 50%-100% in total) to align pricing with regional and international benchmarks.

³⁸ Excluding financial leases.

³⁹ QAJ. Toll Roads. <https://ru.qaj.kz/tollroads/>.

⁴⁰ Table A10 shows the revenue generated by QAJ only, without third party.

Table A2.10: QAJ Consolidated Financial Statements 2021-2023*

QAJ Consolidated Financials	2023 (audited) (1 USD =456.31 KZT)		2022 (audited) (1 USD =460.48 KZT)		2021 (audited) (1 USD =426.44 KZT)	
Currency (in millions)	USD	KZT	USD	KZT	USD	KZT
Income Statement						
Total Revenue	969	442,139	520	239,642	597	254,568
Reimbursement for construction and maintenance	921	420,127	486	223,676	582	248,307
Reimbursement for tolling road	48	22,006	35	15,966	15	6,261
Other	0	6	-	-	-	-
COGS	(960)	(437,995)	(515)	(236,982)	(594)	(253,307)
Gross Profit	9	4,144	6	2,660	3	1,262
Admin expenses	(6)	(2,769)	(5)	(2,281)	(4)	(1,813)
Other expenses	2	858	2	977	(4)	(1,771)
Other income	(9)	(4,082)	(10)	(4,469)	3	1,357
Net Finance expenses	2	1,018	(2)	(1,126)	(3)	(1,241)
FX gain / (Loss)	45	20,519	(23)	(10,444)	5	2,206
Profit/(Loss) Before Tax	43	19,688	(32)	(14,683)	(0)	(0)
Income Tax	3	1,270	(7)	(3,197)	0	127
Profit for the year	46	20,958	(39)	(17,880)	0	127
Cash flow Statement						
Cash flow from Operating activities	52.5	23,973	88.0	40,541	(44.3)	(18,905)
Cash flow from Investing activities	9.3	4,234	1.9	890	1.6	692
Cash flow from Financing activities	(68.0)	(31,051)	(21.1)	(9,736)	48.2	20,546
Effect of foreign exchange rate changes on cash	(0.2)	(69)	(0.1)	(32)	(0.1)	(41)
Net increase (decrease) in cash and cash eq.	(6.4)	(2,912)	68.8	31,662	5.4	2,292
Cash and cash eq. at 31 December	86.4	39,256	91.1	42,169	24.2	10,507
Balance Sheet						
QAJ Consolidated Financials						
2023 (audited) (1 USD =454.56 KZT)						
2022 (audited) (1 USD =462.65 KZT)						
2021 (audited) (1 USD =434.78 KZT)						
Currency (in millions)	USD	KZT	USD	KZT	USD	KZT
Balance Sheet						
Total Current Assets	461	209,431	435	201,285	358	155,668
Total Non Current Assets	2,392	1,087,294	2,039	943,158	1,892	822,811
Total Assets	2,853	1,296,725	2,474	1,144,443	2,251	978,479
Total Current Liabilities	486	220,811	404	186,935	265	115,291
Total Non-current Liabilities	2,407	1,094,283	2,210	1,022,256	2,093	910,056
Total Liabilities	2,893	1,315,094	2,614	1,209,191	2,358	1,025,348
Total Equity	(40)	(18,369)	(140)	(64,748)	(108)	(46,868)

*Source: QAJ. Financial and Annual Reporting. <https://en.qaj.kz/company/reports/>.

Annex 3: Paris Agreement Alignment and Climate Finance

The Asian Infrastructure Investment Bank (AIIB) has committed to align all its new financing operations with the Paris Agreements (PA)'s goals by July 1, 2023. To achieve that target, in July 2023, the Bank launched its Methodology for Assessing the Alignment of AIIB Investment Operations with the PA. The document elaborates the application of the joint multilateral development bank (MDB) methodological framework to align AIIB investment operations with the PA (specifically, the mitigation dimension or BB1 and the adaptation aspects or BB2). The AIIB Methodology has been followed to assess the alignment of the Project with the PA.

BB1: Alignment with the Mitigation Goals of the Paris Agreement

The Use of Proceeds of the Project comprises two components, the main one being the reconstruction and upgrade (from two- to four-lanes) of a 234-kilometer road section of the M-32 Highway, starting from the city of Aktobe, through Karabutak to Ulgaisyn in the Aktobe region of Kazakhstan, to up-to-date standards in climate resilience and road safety.

Some of the road sections will have a capacity increase from a two-lane carriageway to a four-lane carriageway and thus cannot be considered Universally Aligned and are subject to Specific Criteria (SC) assessment to determine its alignment with the mitigation goals of the Paris Agreement (BB1). The Project is likely to be affected materially by some climate hazards and thus, a full Climate Resilience Assessment has been conducted to determine the alignment of this component with the adaptation goals of the Paris Agreement (BB2). The results of the SC1-SC5 assessment and Climate Resilience Assessment (CRA) are presented here.

The second component consists of Capacity Building and Implementation Support. This component will help to establish and enhance the Project Implementation Unit (PIU) within QAJ through hiring required consultants to support and strengthen PIU technical capacity for project management and procurement. This Component can be classified as aligned both for adaptation and mitigation due to its neutral impact on climate mitigation and the immateriality risk from the climate resilience perspective.

SC1 and SC2: Nationally Determined Contributions (NDC) and (Long-term Low-GHG Emissions Development Strategy) LTS Alignment: The Project is consistent with the Nationally Determined Contribution (NDC) of the Republic of Kazakhstan. Kazakhstan is committed to an unconditional target of 15% reduction and a conditional target of 25% reduction of its net greenhouse gas (GHG) emissions by 2030 as compared to 1990 levels, as stated in its updated NDC submitted in 2023. A review of the NDC indicates that the primary lever for road-based transportation carbon dioxide (CO₂) reductions is through the development of sustainable transport, infrastructure for electric and gas vehicles and smart traffic management systems. No specific information was identified in the NDC related to the development of inter-urban road infrastructure.

Therefore, the Project adheres to the SC1 and SC2 criterion.

SC3: Low-Carbon Pathways (LCP) Test:

The Project is consistent with LCP. There is no official long-term strategy for transportation decarbonization in Kazakhstan, even if it has committed to carbon neutrality by 2060 and

enshrined its net zero target into law in 2023. In the absence of a national or regional Low-Carbon pathway for passenger and freight connectivity, AIIB assessed the Project against benchmarks from the International Energy Agency Net Zero 2050 scenario. This scenario signals that vehicle fleet electrification is a key benchmark for transport decarbonization. Within the boundaries of this Project, consistency of the Project with the LCP thus entails being compatible with electric vehicles (EVs) and other alternative fuel vehicles and being able to accommodate infrastructure required for charging future Low-Carbon vehicle fleets. The Project is a 234-kilometer road section and there are no apparent national regulations in Kazakhstan regarding provision of charging infrastructure on national corridors. Using the European Union (EU) Alternative Fuels Infrastructure Regulation as a proxy indicates that a charging station should be made available at least every 60 kilometers (km) on main highways. Nine rest areas are foreseen, with the requirement of being able to accommodate charging infrastructure. Moreover, to build experience in EV charging infrastructure deployment upon major highway corridors, the Company committed to implement a pilot EV charging infrastructure corridor on a major corridor of Kazakhstan by 2030. The pilot EV charging infrastructure corridor was one of the recommendations proposed in the National EV Charging Infrastructure Strategy that the European Bank for Reconstruction and Development (EBRD) supported as part of the Kyzylorda-Zhezkazgan Road signed in 2021. This commitment is the result of the continuous policy engagement of the Bank with the road sector stakeholders in Kazakhstan. In addition, the Company has committed to deploying green tolling as a pilot over 500 km of the road network. This measure will apply differential toll rates favorable for low emission vehicles to incentivize EV adoption. Finally, a Technical Cooperation (TC) for the piloting of high performance and low-carbon pavements (also more climate-resilient) has been agreed with the Company as a pioneer measure to start addressing road construction emissions. The TC will include updating the national technical standards to enable the use of innovative pavements in future projects. These three commitments will be covenanted in the Loan Agreement.

Therefore, the Project adheres to the SC3 criterion.

SC4a Alternatives Test

This part of the assessment considers whether the project demand can or cannot be served by an existing less carbon-intensive transport infrastructure with a similar Level of Service (LOS). If there is no comparable alternative to the proposed investment, then the SC4a test is passed.

The following steps should be followed:

Step 1: Identify what potential lower-carbon transport alternatives exist that provide access to the main origins and destinations (ODs) within the proposed road's influence area (RIA).

Being one of the main and longest highways in Kazakhstan, the M-32 Highway facilitates long-haul traffic between the regions of Kazakhstan as well as transit traffic between Europe and East Asia. The Aktobe-Karabutak-Ulgaisyn section is also operating as a feeder to the North Kazakhstan Route of the Middle Corridor, providing direct connection from and to the chromium mining industry in the Khromtau area, linking mining operations to processing facilities and export routes. These export routes include International Rail Corridors crossing Aktobe, which is well connected to the rail network, while Belkopa and Ulgaisyn do not have railway connections. The construction of the highway is not expected to impact Kazakhstan's programs to enhance and modernize railway transport.

Step 2: Assess whether the alternatives identified in the previous step are comparable to the proposed project by comparing them to the project in terms of LOS.

The low-carbon alternative (railway) does not cover the Origins and Destinations within the proposed road's influence area. While Aktobe is linked by railway to Khromtau, Belkopa and Ulgaisyn do not have railway connections. Consequently, there is no existing lower-carbon transport alternative in terms of LOS.

Step 3: Analyze and document whether the project demand can or cannot be served by the lower-carbon alternative(s) identified with a similar LOS.

We conclude that the project demand cannot be served by the lower-carbon alternative identified with a similar LOS as they do not fully cover the main ODs.

Therefore, the Project adheres to the SC4a criterion

SC4b: Lock-in test.

As a common carrier agnostic to types of motorized vehicles, roads are typically not subject to technological lock-in of a particular type of fleet. The Project can be considered future-proofed, as it will be able to accommodate the infrastructure required to enable the deployment of future lower-carbon fleets, once available. The Project will be designed to allow the future deployment of more energy-efficient public transport fleet, vehicle types, or road operations, as well as other Paris-aligned activities.

Therefore, the Project adheres to the SC4b criterion.

SC5: Economic Evaluation.

The Project is economically viable, incorporating a shadow price of carbon and compared with a no-project scenario resulting in an economic internal rate of return (EIRR) of 25.1%. The majority of emissions from the project are related to Scope 3 emissions associated with vehicle fleets. There is a net increase in average annual Scope 3 emissions of approximately 5.4 kilotons of carbon dioxide equivalent per year (ktCO₂eq/year) over the assessment period (2030-2060). The project has an annual average absolute Scope 3 emissions of 223.8ktCO₂e.

Therefore, the Project adheres to the SC5 criterion.

BB1 conclusion: Based on the analysis performed for SC1-5, the Project can be considered aligned with the PA's climate mitigations goals (BB1).

BB2: Alignment with the Adaptation Goals of the Paris Agreement

A CRA following the AIIB's methodology to determine the alignment of the road component with the adaptation goals of the Paris Agreement (BB2) was conducted. The methodology has three steps: (1) a climate risk and vulnerability assessment (CRVA), (2) the identification of measures addressing the climate risk found on the previous step and (3) the compatibility of the Project against the NDC and other climate adaptation national strategies. Individual CRA has been carried out for the different sections.

A comprehensive CRVA was undertaken for the whole Aktobe-Karabutak-Ulgaisyn Corridor. The assessment identified floods, extreme precipitation and wildfires and to a lesser degree, extreme heat as the material physical climate risks for the road. Even if water stress was identified at screening stage, it was assessed as non-material during the project assessment.

Suitable climate resilience measures have been included in the Project (please see section below). Such specific measures include improvements in culvert design, bridge protection measures and the construction of roadside channels/ditches. Operational measures were also identified to strengthen infrastructure resilience during the operations and maintenance (O&M) phases. In addition, the Project does not undermine the resilience of wider systems and is not inconsistent with the national policy for context adaptation.

CRVA: A CRVA was undertaken to map in detail the exposure of the Aktobe-Ulgaysin corridor climate vulnerabilities.

The following climate parameters were modelled for the Aktobe region on four different horizons (2020-2039, 2040-2059, 2060-2079, 2080-2099):

- (a) Average mean air temperature for the Aktobe region.
- (b) Projected climatology of average mean surface air temperature.
- (c) Projection of number of hot days in the Aktobe region.
- (d) Projection of number of icy days in the Aktobe region.
- (e) Projections in precipitation (mm) in the Aktobe region.
- (f) Projected number of days with precipitation over 20 millimeters (mm).

This was done to assess the most important factors for climate-proofing the road infrastructure. The parameters were calculated separately for the RCP 2.6, RCP 4.5 and RCP 8.5 scenarios. The assessment concluded that this highway is highly vulnerable to wildfires and floods, while it is moderately vulnerable to heat.

Exposure: For the exposure analysis, the *ThinkHazard! Tool* developed by the Global Facility for Disaster Reduction and Recovery (GFDRR) was used to assess the hazards for the current climate. The tool provides a general view of the hazards for a given location, that should be considered in project design and implementation to promote disaster and climate resilience. Four locations alongside the road were considered (Table A3.1).

Table A3.1: Hazard Assessment by Location

Administrative unit	District	Wildfire	River flood	Urban Flood	Water scarcity	Heat	Landslide
Aktobe	Aktobe	High	Low	Low	Low	Low	Very low
Khromtau	Khromtau	High	Very low	Very low	Low	Low	Very low
Belkopa	Aiketebi	High	Low	Low	Low	Medium	Very low
Ulgaysyn	Aiketebi	High	Low	Low	Low	Medium	Very low

As derived from Table A3.1, the most important hazard in the Project area is wildfires, while heat is considered a low to medium risk. River and urban flooding are considered low. The same applies to water scarcity, while the risk from landslides (an important hazard to consider for road infrastructure) is classified very low.

It must be noted, however, that the area may suffer from spring floods due to snow melting. Spring floods usually pass at the end of March and first half of April in one well-pronounced wave. If cold weather returns during snowmelt, flood splits into two (1948, 1955) or even three waves (1948, 1955, 1962). On rare occasions, rain during floods can double the flow (1960). In spring 2024 Northern and Western Kazakhstan has been significantly affected by the floods. Dams were breached and reservoirs overflowed, causing widespread devastation and displacing over 119,000 people, including 44,000 children,⁴¹ instead of low as the *ThinkHazard! Tool* suggested.

⁴¹ Reliefweb. 12 June 2024. [Devastating Floods in Kazakhstan: A National Emergency](#).

By combining the existing hazards and the prediction for future climate in the Project areas, the exposure for current and future climate is presented in Table A3.2.

Table A3.2: Exposure to Current and Future Climate Hazards

	Wildfire	Flood	Heat	Cold	Landslide	Wind	Wildfire
Current climate	Medium	Medium	Low	Low	Low	Low	Low
Future climate	High	High	Medium	Low	Low	Low	Medium
Highest score, current + future	High	High	Medium	Low	Low	Low	Medium

Sensitivity: The sensitivity analysis was applied using the expertise of the consultant assigned with the task (Table A3.3).

Table A3.3: Sensitivity to Climate Hazards

Climate Hazard	Sensitivity
Heat	Medium
Cold	Medium
Landslides	Medium
Sea level rise	Medium
Drought	Low
Wildfires	Medium
Flooding	Medium
Windstorms	Low

Vulnerability: The vulnerability of the Project (Vulnerability = Sensitivity x Exposure) is summarized in Table A3.4.

Table A3.4: Vulnerability Matrix

		Exposure		
		High	Medium	Low
Sensitivity	High			
	Medium	Wildfire / Flood / Extreme precipitation	Heat	Landslide
	Low		Drought / Wind	

According to this analysis, the highway is highly vulnerable to wildfires and floods, while it is moderately vulnerable to heat.

Climate adaptation measures: The Project incorporates measures tackling the climate hazards found (on the CRVA) as likely to materially affect the Project such as floods, extreme precipitation and wildfires and to a lesser degree extreme heat. Even if water stress was identified at screening stage, it was assessed as non-material during the project assessment. The Project incorporates measures to address these climate hazards such as improvements in culvert design, bridge protection measures and the construction of roadside channels/ditches. Operational measures were also identified to strengthen infrastructure resilience during the O&M phases (Table A3.5).

Table A3.5: Climate adaptation measures

Climate Hazard	Measure and Justification
Floods / extreme precipitation	<ul style="list-style-type: none"> • Development during the design of a two-dimensional hydraulic model to be used for drainage design • Increase culvert minimum dimensions. The new minimum reinforced concrete box culvert dimensions would be 2 x 2 meters (m), in comparison to the current smaller, mainly circular, single and multiple-barrel culverts, varying from 1,000 mm to 1,500 mm in diameter. • Implement roadside channels/ditches to catch and redirect highwater away from the embankment and toward the nearest water body (river, stream, agricultural channel), whether it is caused by rainfall or snowmelt. As such, channels need to be laid out along the embankment toe on whichever side of the route has higher elevation. • Incorporation of Bridge Drainage Systems and recalibration of bridge designs to include appropriate thermal considerations in line with international standards.
Extreme heat / Wildfire	<ul style="list-style-type: none"> • Bridges and overpasses: Usage of higher-grade concrete, implementation of more unified and robust bridge foundations and consideration of temperature effects (elastomeric bearings/isolators, dilatation joints).
All Climate hazards	<ul style="list-style-type: none"> • Emergency response plan against all identified climate risks, including wildfires. • Climate adaptation plan. • Adoption of asset management practices.

The Project does not pose a risk for maladaptation or undermine the resilience of wider systems.

Non-incompatibility with the NDC and other Adaptation Strategies.

The Project is not incompatible with the NDC or any other national climate adaptation strategy.

BB2 Conclusion: The Project incorporates measures that tackle the climate hazard that might materially affect it and it is not incompatible with the NDC and other national adaptation strategies, thus it is considered aligned with the adaptation goals of the PA (BB2).

Climate Mitigation Finance

The Project does not qualify as climate mitigation finance.

Climate Adaptation Finance

The joint MDB methodology specifies three criteria that need to be met simultaneously for a project or activity to be considered as adaptation finance.

Criteria 1, the climate risk context of the activity or project is clearly set out: Please refer to the CRVA on the BB2 section.

Criteria 2, a statement is explicitly made for the project to reduce the climate vulnerability and/or to enhance the climate resilience: The Project construction-related costs will include climate resilience measures, identified through a thorough climate risk and vulnerability assessment. It is therefore the explicit intent of those activities to reconstruct a road in a way that is resilient to the impacts of climate change. The Project has allocated appropriate climate change measures as part of climate adaptation solutions, which are listed in the BB2 section.

Criteria 3, there must be a logic and direct link between an activity or project and the climate risk context established within the project: As mentioned on the adaptation section,

climate adaptation measures (that can be considered substantial contributors) have been incorporated into the Project.

The Project is classified as a climate adaptation type 1 (adapted project), with primarily structural measures implemented. According to AIIB's proportional approach, which is based on the Joint MDB methodology for tracking climate adaptation finance, 15% of the EPC cost financed by AIIB can be allocated to climate adaptation finance. This amounts to USD66.2 million, which is 15% of the total EPC cost of USD441.3 million.

The total climate financing of the Project would be equivalent to the total climate adaptation finance as it does not have any climate mitigation components. Thus, the total climate finance would be USD66.2 million, equivalent to 15% of AIIB's investment.

GHG Assessment

The consultant estimated that the Project will increase GHG emissions by 22,450 tons per year during the years of operation. The GHG assessment considers the existing traffic emissions (Scope 3) for the baseline scenario and the sum of the construction (scopes 1, 2 and 3) and the new traffic emissions (scope 3) for the with-project scenario. The assumptions of the calculation are as follows:

- (a) The forecasts of the traffic demand study are used for the estimation of the emissions for the period 2029-2053.
- (b) The energy (fuel) required for the circulation of conventional vehicles is estimated by using the Tier 2 average fuel/energy consumption values that are provided by the European Monitoring and Evaluation Programme (EMEP) 2023.
- (c) The penetration of electric vehicles in the transport system has also been considered, for both passenger vehicles and trucks.

Table A3.6 shows the annualized emissions of the project and Table A3.7 the breakdown of emissions between scope 1, 2 and 3, and the relative emissions calculation.

Table A3.6: Annualized CO2e emissions

Component	Total life-cycle emissions, t CO2e	Annual emissions, t CO2e*
Baseline emissions		
Traffic (Scope 3)		218,432
Construction phase		
Material production (Scope 3)	332,974.53	13,562
Material transport (Scope 3)	46,774.44	
Construction (Scope 1 & 2)	8,736.81	312
Operation phase		
Traffic (Scope 3)		223,828
Road operating (lighting)	62,435.63	2,497.43
Maintenance	17,078.60	683.14
TOTAL	468,000.00	

Table A3.7: Relative emissions of the project

	Scope 1	Scope 2	Scope 3
Baseline emissions			
<i>During operation (annual average CO₂ emissions)</i>	-	-	218,432

Project emissions			
<i>During construction (estimate for 3 years of construction and 25 years of operations)</i>	312		13,562
<i>During operation (annual average CO₂ emissions)</i>	683	2,497	223,828
Relative emissions ('delta' between Baseline emissions and project emissions)			22,450

^[1] United Nations Nationally Determined Contributions Registry. <https://unfccc.int/NDCREG>.

^[2] Reliefweb. 12 June 2024. [Devastating Floods in Kazakhstan: A National Emergency](#).

Annex 4: Member and Sector Context

1. **Country and Macroeconomic Overview.** The Republic of Kazakhstan is a large landlocked economy located in Central Asia. Surrounded by other Asian Infrastructure Investment Bank (AIIB) Members, Kazakhstan also has a significant shoreline along the Caspian Sea. With an area of 2.7 million square kilometers (km²), it is the ninth-largest in the world. Despite its vast size, it has a relatively small population of around 20.3 million (2024)⁴² resulting in one of the lowest population densities globally (seven people per km²).⁴³ Kazakhstan is one of the world's most mineral-rich economies and holds substantial oil reserves. In 2024, it produced 87.7 million tons of oil, of which 68.6 million tons were exported as crude.⁴⁴

2. Kazakhstan has made rapid economic progress over the past two decades, despite significant challenges such as economic and financial crises in 2008 and between 2014 and 2016. The economy has rebounded from downturns in 2020 and 2022 to achieve a gross domestic product (GDP) growth rate of 5.1% in 2023, supported by fiscal expansion and rising oil production. GDP growth slightly slowed to 4.8% in 2024 and is projected to reach 4.9% in 2025.⁴⁵ Kazakhstan's economy still relies heavily on hydrocarbons and consumer spending, highlighting the need for further economic diversification. Its resource-driven economy and geography have led to significant disparities in living standards and per capita income, particularly between urban and rural areas. Overall, rural poverty in Kazakhstan remains nearly twice as high as urban poverty. These disparities are evident in employment opportunities, educational attainment, healthcare access and basic services. To achieve sustainable and inclusive growth, Kazakhstan needs to address these challenges, especially the regional disparities and urban-rural divide.

3. **Regional Development.** The Aktobe region covers an area of 300,629 km² and has a population of approximately 950,900, around 4.7% of Kazakhstan's total population (2025).⁴⁶ It is a major industrial and agricultural region of Kazakhstan. In 2024, the total gross regional product of Aktobe region was approximately USD10 billion,^{47, 48} equivalent to 3.71% of the total GDP. The main driver of the region's GDP is industry. Approximately 50% of the region's industrial output comes from manufacturing, while another 40% comes from mining and quarrying.⁴⁹ The region has significant potential for further development of the metallurgical, chemical and oil and gas industries, as its subsoil contains deposits of a wide range of minerals including chromium, nickel, titanium, phosphorites, zinc, copper and aluminum. These reserves represent significant percentages of Kazakhstan's total reserves. Agriculture, forestry and fishery accounted for another 7.3% of the gross regional product in 2024,⁵⁰ with over 12,400 hectares of land used for agriculture. Animal husbandry is the dominant sector within agriculture, with pastures accounting for almost 90% of the agriculture area. Spring wheat, barley, millet and other crops are also grown and processed in the region. The Aktobe

⁴² Tengri News. 6 January 2025. [Population of Kazakhstan as of December 1, 2024, has been announced.](#)

⁴³ Trading Economics. 2025. [Kazakhstan - Land Area \(sq. Km\) - 2025 Data 2026 Forecast 1961-2022 Historical.](#)

⁴⁴ Government of Kazakhstan. 3 March 2025. [Ministry of Energy of Kazakhstan: 2024 results and strategic plans for 2025.](#)

⁴⁵ IMF. 2025. [Republic of Kazakhstan and the IMF.](#)

⁴⁶ Government of Kazakhstan, Bureau of National Statistics. [Statistics of the regions of the Republic of Kazakhstan.](#)

⁴⁷ Trading Economics. 2025 GDP national estimate. [Kazakhstan GDP.](#)

⁴⁸ Government of Kazakhstan. 2025 GDP share. [Gross regional product \(January-March 2024\).](#)

⁴⁹ Government of Kazakhstan, Bureau of National Statistics. 2024. [Gross regional product of the Republic of Kazakhstan with the allocation of the unobserved economy \(2023\).](#)

⁵⁰ Government of Kazakhstan, Bureau of National Statistics. 2024. [Gross regional product \(January-March 2024\).](#)

region, due to its rich mineral reserves and strategic location, is considered an important strategic hub with prospects for further development and increased traffic.

4. Despite its rich mineral resources, Aktobe has not positioned itself as a resource-based economy reliant on raw materials and commodity exports. Instead, it focused on developing a well-established manufacturing sector and local processing industries. In addition to mining and hydrocarbon processing, it established industries for ferrous and non-ferrous metallurgy, mechanical engineering and metalworking, chemicals, food, building materials, among others. There are 19,257 registered enterprises in Aktobe, of which 394 are classified as medium-to-large.⁵¹ Some of which are recognized as world-class in their respective sectors and play a vital role in the region's economic development. The Government of Kazakhstan has implemented several initiatives to create a favorable business environment and attracted more than 1,050 foreign enterprises. Aktobe's total foreign trade was approximately USD4.4 billion in 2024, with trade relationships to 51 economies. Exports accounted for USD2.8 billion comprised of 51% raw materials, 46% semi-finished goods and 3% finished products. Imports amounted to USD1.6 billion in 2024, composed of 51% semi-finished products, 41% finished goods and 8% raw materials.⁵² The capacity, service quality and efficiency of the region's transportation infrastructure, particularly in the road sector, play a critical role in strengthening the local industrial value chain and driving economic growth.

5. To further enhance the region's investment appeal, in November 2024, the government announced plans to create a Special Economic Zone (SEZ) in Aktobe, which is set to operate until 2049.⁵³ Prior to the SEZ announcement, the region already had an Industrial Zone situated along the Western Europe–Western China road corridor, approximately 12 kilometers (km) from the Aktobe city center and 65 km from the border. The special legal regime is intended to further boost industrial development and economic diversification in Aktobe, with a focus on export-oriented sectors.

6. **Transport Sector Overview:** Kazakhstan has a sparsely distributed population across a vast land area, resulting in one of the lowest road densities in the world. The existing road network spans 98,000 km, with 25,000 km designated as national highways, including 24 tolled sections stretching over approximately 4,400 km of road. A large portion of the existing road network was built during the former Soviet Union era and has since deteriorated, significantly affecting both safety and efficiency. According to United Nations Economic Commission for Europe, Kazakhstan had a fatalities rate of 120 per million habitants in 2021, ranking fourth-highest among all economies assessed.⁵⁴ As of 2023, around 2.89 million rural residents still lacked access to an all-season road.⁵⁵ Kazakhstan's railway system spans approximately 16,400 km, making it one of the 15 largest in the world. Around 28% of the railway is electrified, while 69% remains single-track.⁵⁶ In 2024, the railway network

⁵¹ Aktobe Investor Update received from QAJ. 2025. <https://astanatimes.com/2023/05/aktobe-region-drives-economic-growth-through-exports-and-tourism/>

⁵² Aktobe Investor Update received from QAJ. 2025. <https://astanatimes.com/2023/05/aktobe-region-drives-economic-growth-through-exports-and-tourism/>

⁵³ KazTag. November 2024. <https://kaztag.kz/en/news/special-economic-zone-to-be-created-in-aktobe-region>

⁵⁴ UNECE. 2023. <https://w3.unece.org/roadsafety/2023/>

⁵⁵ Asian Transport Observatory. 2023. [Green Roads Profile](https://www.ato.org/green-roads-profile)

⁵⁶ UN ESCAP. 2022. <https://repository.unescap.org/bitstream/handle/20.500.12870/4199/ESCAP-2022-WP-Kazakhstan-Kyrgyzstan-Transport-Connectivity-Impact-Covid-19-Pandemic-Euro-Asian-Linkage.pdf?sequence=4&>

transported 337.5.8 billion ton-km of goods (a 3.3% year-on-year increase),⁵⁷ accounting for 68% of Kazakhstan’s total freight volume.⁵⁸

7. Passenger turnover was 1.27 billion people-km in 2023 (down from 1.44 billion people-km in 2022). There is no existing railway line, nor is any railway line planned along the road corridor of the proposed Project. In 2023, approximately 20 million passengers were transported by rail nationwide, with the total passenger turnover reaching around 15 billion passenger-km.⁵⁹

8. **Transport in Aktobe region** is primarily reliant on its air and overland transport networks. In 2024, the transportation and storage sectors contributed approximately 9.7% of the region’s GDP. Located approximately 1.5 km southwest of the city center, the Aliya Moldagulova International Airport, Aktobe’s international airport, is among the busiest in Kazakhstan and supports both passenger and freight travel. In recent years, its runway, lighting systems and terminal complex have been upgraded. In 2023, the passenger turnover through the airport reached over 900,000 and its five-year cargo volume was 65,000 tons. The region is intersected by three major oil and gas pipelines spanning over 3,200 km, facilitating the transportation of hydrocarbons domestically and internationally. A fourth pipeline between Aktobe and Kostanay in northern Kazakhstan is in the planning stage, with construction set to begin in 2026. Aktobe’s railway network spans approximately 1,500 km of the region and is serviced by eight railway stops for both passenger and freight transport. Aktobe is linked by railway to Khromtau, while Ulgaisyn and Belkopa are not directly connected to Aktobe by railway. In 2023, the region’s railway cargo turnover stood at 30.6 billion ton-km, down from 31.8 billion ton-km in 2022. Passenger turnover was 1.27 billion people-km in 2023 (down from 1.44 billion people-km in 2022). There is no existing railway line, nor is any railway line planned along the road corridor of the proposed Project.

9. As for Aktobe, a significant increase in goods transport by road has been observed in recent years, with growth rates of 40.5% in 2023 and 21.1% in 2024 (Table A4.1). This increase was considerably higher than the growth in goods transport at the national level, reflecting the fast-growing demand for road traffic in the region.

Table A4.1: Transportation of Goods by Road in Kazakhstan and Aktobe, 2010-2024

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 (est.)
Kazakhstan total <i>million ton</i>	71.1	73.6	71.8	99	108.1	102.5	109.4	138.6	158.5	197.6	193.2	217.1	263.2	299	322
Growth %	/	3.5	-2.5	37.9	9.2	-5.2	6.3	26.7	14.4	24.7	-2.2	12.4	21.2	13.6	7.7
Aktobe <i>million ton</i>	2.6	3.3	3.8	5.1	6	8.5	10.5	8	10.6	14.2	14.1	17.3	28.4	39.9	48.3
Growth %	/	26.9	15.2	34.2	17.7	41.7	23.5	-23.8	32.5	34.0	-0.7	22.7	64.2	40.5	21.1

⁵⁷ Economic Research Institute Kazakhstan. 2024. [Kazakhstan's Transport Sector: A Dynamic Overview of 2023 Performance](#).

⁵⁸ Transport Sector Sustainability Assessment Kazakhstan, Asian Transport Observatory (ATO). 2025.

⁵⁹ Government of Kazakhstan, Bureau of National Statistics. 2024. Kazakhstan Temir Zholy. 2024. Annual Report. 2023.

10. Institutional Structure. In the road sector, the government has implemented reforms to enhance capacity and separate regulatory and operational functions. The Road Committee (RC) and KazAvtoZhol National Company Joint Stock Company (QAJ), a state-owned enterprise (SOE), were established in 2013. The Ministry of Transport (MoT) is responsible for high-level policymaking in the road sector, while the RC is responsible for planning and setting strategic direction. QAJ serves as the national operator for the primary National Road Network, including international transit roads. Local and urban roads are managed by oblasts, local districts and municipalities.

11. Toll System. As of May 2025, out of 24,900 km of national highways, toll systems have been introduced on 25 road sections with a total length of 4,760 km, including: 12 sections of the first technical category with a length of 2,231 km, 13 sections of the second and third technical categories with a length of 2,529 km.⁶⁰ Another 8,000 km of toll roads are to be introduced in the near future, once these are repaired and fully comply with regulatory requirements.

12. Since 2022, just four years after the introduction of the toll system, QAJ has been able to finance basic road maintenance and repairs on tolled roads exclusively through toll revenues. This was also made possible by the gradual increase in toll rates, given that Kazakhstan historically had some of the lowest rates in the region.⁶¹ According to QAJ, the MoT still plans to raise current toll rates by an additional 50% to 100%. This adjustment will continue to consider factors such as the level of service, projected road operations and maintenance (O&M) costs, inflation and affordability for nearby residents and frequent users. The objective is to expand the already self-sustaining toll mechanism to cover not only most basic maintenance, but also minor repairs and future improvement work.⁶²

QAJ has implemented various information technologies across Kazakhstan's road tolling system. The two main toll system types are (a) a digital open toll system, which relies on digital license plate recognition and vehicle tracking systems and (b) a hybrid toll system, which combines prepaid accounts with manual checkpoints. Toll revenues for the rapidly expanding network are managed and collected through the KazToll portal, overseen by the Directorate of Toll Roads within QAJ. In 2024, toll road income reached KZT48 billion (approximately USD93.5 million) and QAJ estimates collections will rise to KZT67 billion (USD131 million) in 2025. With the continued expansion of the toll section network and tolling rate updates, the objective is to collect KZT100 billion (USD196 million) in 2026. According to the feasibility study, the Aktobe-Karabutak-Ulgaisyn highway will generate approximately USD10.9 million of toll revenue by 2030. Currently, maintenance⁶³ of the National Road Network is handled by QAJService JSC, a wholly owned subsidiary of QAJ. Mid-level road maintenance⁶⁴ is outsourced to private contractors by QAJService.

⁶⁰ QAJ. 2025. [Toll roads](#).

⁶¹ KazTag. 2023. [Each 1 km of toll road brought KZT 8.3 million within 11 months in Kazakhstan](#)

⁶² According to Order No. 1 issued by the Acting Minister of Transport of the Republic of Kazakhstan on Sep. 15, 2023, funds for the maintenance of toll roads are not allocated from the state budget. Maintenance is carried out exclusively using revenue generated from toll fees.

⁶³ Ongoing minor repairs of the road and its structures performed year-round along the entire road.

⁶⁴ Periodic restoration of road surfaces and correction of structural damages carried out every one to five years, depending on the road classification.

Annex 5: Country Credit Fact Sheet

1. **Background.** Kazakhstan is an upper-middle-income economy with a population of 20 million and a per capita income of approximately USD14,800 (or USD44,500 in purchasing power parity). The economy remains reliant on hydrocarbons, which account for around 20% percent of gross domestic product (GDP), half of exports and one-third of government revenues. It ranks among the top 15 economies globally with proven oil reserves. State footprint in the economy remains significant, with state-owned enterprises playing a dominant role. Kazakhstan benefits from a strategic geographic location, positioning it as a potential key logistics hub along the increasingly vital Middle Corridor trade route connecting Asia and Europe.

2. During periods of high oil prices, Kazakhstan experienced strong economic growth, large fiscal surpluses and was able to build substantial asset buffers. Following the 2014 oil price crash, Kazakhstan has implemented a series of reforms aimed at strengthening macroeconomic frameworks and reducing dependence on oil, including the adoption of fiscal rules to support long-term sustainability and enable development investments. Monetary policy has also shifted toward inflation targeting, with improvements in policy transparency, operations and banking supervision. Key macroeconomic indicators for 2022-2029 are presented in Table A5.1.

Table A5.1: Key Macroeconomic Indicators

Key Economic Indicators	2022	2023	2024*	2025*	2026*	2027*	2028*	2029*
Real GDP growth 1/	3.2	5.1	4.8	4.9	4.3	3.8	2.6	3.1
Inflation (CPI, end-of-period) 1/	20.4	9.7	8.6	10.1	10.0	8.5	6.5	5.0
Fiscal balance	0.1	-1.5	-1.6	-3.1	-3.4	-3.2	-2.7	-2.1
Public debt	23.5	23.0	24.8	25.4	27.9	29.9	31.8	33.5
Gross public financing needs	1.5	1.8	3.4	3.1	3.1	3.6	..	..
Current account balance	2.9	-3.6	-1.3	-3.6	-3.7	-3.5	-3.4	-3.2
External debt	71.2	61.3	58.4	57.6	56.4	..	..	..
FX reserves (USD billion) 2/	35.1	35.9	40.2	50.1	..	..	..	..
Exchange rate (KZT/USD) 2/	462.7	454.6	485.0	509.3	..	..	..	..

Source: WEO, April 2025. IMF Country Report, Jan 2025. In percent of GDP unless indicated otherwise; '*' = projections.

1/ percent change, year-on-year 2/ end-of-period, most recent data from central bank; as of May 26, 2025

3. **Recent Development.** Kazakhstan has displayed economic resilience through a variety of shocks in recent years. In 2024, the economy grew by 4.8%, with the oil sector declining slightly, amid maintenance at key fields and production limits. The non-oil sector expanded by 5.5% percent, supported by government stimulus and diversification efforts. Strong gains were recorded in agriculture, construction, trade and transport/logistics, with the latter two sectors aided by activity along the Middle Corridor.

4. Inflation averaged 8.7% in 2024, down from 14.5% in 2023, largely due to a decline in food prices. However, renewed pressure from currency depreciation, rising food costs, higher utility tariffs, strong demand and fiscal expansion pushed inflation back to over 10% recently. In response, the central bank raised the policy rate by 125 basis points to 16.8% in March. It is expected to maintain tight monetary policy to anchor inflation expectations and affirm its commitment to a 5% inflation target.

5. The banking sector remains strong, with stable capital and liquidity, record profitability and a low share of non-performing loans at around 3.2%. Despite tighter financing conditions, household loans nearly doubled during 2020-2024, while real incomes rose by 15%, raising concerns about financial vulnerability for low-income households.

6. To promote economic diversification, Kazakhstan has launched the National Infrastructure Plan, committing KZT40 trillion (approximately USD80 billion, or 27% of GDP) through 2029 to key sectors including utilities, transport, water and digital infrastructure. Kazakhstan is also undertaking major tax reforms, with a new tax code pending presidential approval. Key measures include raising the value-added tax (VAT) rate to 16% and lowering the VAT registration threshold to broaden the tax base. These measures are expected to reduce reliance on oil revenues and help narrow the non-oil deficit. Sustaining long-term growth will require deeper progress on more complex and sensitive reforms, such as privatization and enhancing market competition.

7. **Outlook and Risks.** Looking ahead, GDP growth is projected to remain stable, at around 4.9% percent in 2025, supported by non-oil sector expansion and higher oil output from the Tengiz field. Over the medium term, GDP growth is expected to slow toward its long-term trend (which, absent accelerated structural reforms, is estimated at around 3.5%), as domestic demand and investment soften along a reduction in government spending.

8. Risks to the outlook include delayed reform implementation, declines in oil prices, potential setbacks in the Tengiz field expansion and lower growth in trading partners. Furthermore, growing global trade tensions and policy shifts add uncertainty to the outlook. Mitigating these risks are low and sustainable debt, large fiscal buffers (sufficient to cover all public debt with a large margin), adequately capitalized and profitable banking sector and a degree of political stability. Upside potential also includes higher oil prices and higher-than-expected foreign investment in new sectors.

9. While the deficit is likely to increase somewhat in the near term, it is projected to gradually decline from 2027 as tax reforms take effect, supporting the government's goal of reducing the non-oil deficit to 5% of GDP by 2030 and maintaining fiscal space. Foreign exchange reserves have exceeded USD50 billion this year, covering about eight months of imports. This excludes the National Fund's foreign exchange assets (about USD59 billion), which are part of the consolidated government budget.

10. Kazakhstan maintains its investment-grade status, with Fitch (BBB stable) and S&P (BBB- stable) affirming their ratings despite recent shocks. Moody's upgraded Kazakhstan from Baa2 to Baa1 in 2024, citing steady progress in economic diversification away from hydrocarbons and continued reforms.