



# Non-Technical Summary

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*Kyzylorda to Zhezkazgan Road Rehabilitation Project, Kazakhstan*

June 2021

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# 1. Project Description

## 1.1. Overview of the Project

The Government of Kazakhstan has approached the European Bank for Reconstruction and Development (EBRD) to provide a sovereign guaranteed loan to finance the urgent reconstruction of the 204 km section of Kyzylorda-Zhezkazgan road and greenfield construction of the 15 km Kyzylorda bypass (4 lanes). The EBRD is considering financing for both sections, although this NTS is only for the 204 km section of Kyzylorda-Zhezkazgan Road Project (12 km to 216 km), meeting the requirements of a Category B project under EBRD's Environmental and Social Policy, whereas the 15 km Kyzylorda bypass is classed as a greenfield Category A project. The EBRD has previously successfully financed several other road projects in Kazakhstan. The reconstruction will cover approximately 220 km of a 427 km road linking the cities of Kyzylorda (the main rice producer to the south of the country) and central Zhezkazgan (Kazakhstan's copper capital).

The reconstructed 204 km road will follow the alignment of the existing road: a two-lane, technical category III road constructed over 30 years ago. The investments will finance the upgrade of the road to technical category II, including works related to the road pavement, construction of bridges, interchanges, gender sensitive roadside facilities, rest areas, stops for public transport, as well as financing supervising engineers and implementation assistance to the Project Implementation Unit (PIU). Once complete, the road will be tolled as part of the Company's ongoing work to rollout an electronic tolling system on newly reconstructed roads nationwide (this aspect is outside of EBRD's scope for this Project).

The PIU for the road is within the Construction Directorate of KazAvtoZhol, the state-owned national road operator. KazAvtoZhol is engaged in designing and constructing national highways under a service agreement with the Ministry of Industry and Infrastructural Development of Kazakhstan (MIID). It is also responsible for the management of toll roads, including toll collection and maintenance. The Company will have overall responsibility for the implementation of this road reconstruction project.

A national Environmental Impact Assessment (EIA) has been developed and approved for each of the six sections of the road: 12-24 km, 24-76 km, 76-127 km, 127-156 km, 156-186 km and 186-216 km. A final road design is now complete for all six sections. Tendering for the construction of the road sections has yet to start. It was originally planned that construction will commence around Q1 2021 for most sections of the road, although this has been delayed, with completion within 36 months from the date of signing the contract for the road works construction.

The key potential temporary impacts resulting from construction of the road are anticipated as follows:

- restricted community and business access along the road (including access for the local community to memorials and cemeteries);
- temporary loss of income for cafes, service areas, petrol stations and businesses in close proximity to the alignment;
- reduced air quality;
- noise and vibration; and
- local nuisance to nearby houses and increased traffic.

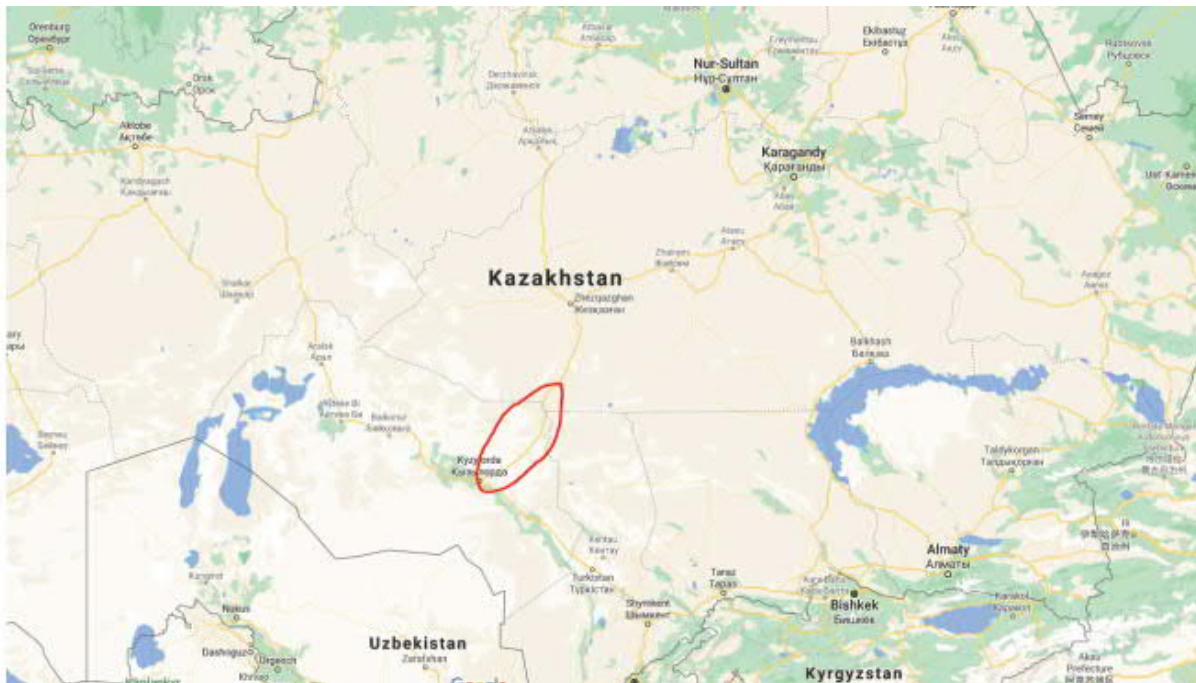
The impacts associated with construction work will be minimised through implementation of an Environmental and Social Action Plan (ESAP) that has been developed.

This document is a Non-Technical Summary (NTS) providing a summary of the Project in non-technical language covering the background and project description, the national EIA process, the environmental and social benefits/impacts, mitigation and management measures that have been incorporated into the Project ESAP and the contact details for communications. A summary of the Stakeholder Engagement Plan (SEP) for the Project that includes a grievance mechanism is also provided.

## 1.2. Reconstruction Planned and Road Setting

The proposed 204 km EBRD funded road section “Kyzylorda – Zhezkazgan” is located in Syrdariya and Shieli districts of Kyzylorda region. This road is the only road connecting the cities of Zhezkazgan and Kyzylorda and has a great importance in providing transport connections in the Republic of Kazakhstan and access to Central Asia. The location of the road is shown in Figure 1-1 below.

**Figure 1-1 Location of Road in Kazakhstan**



**Source:** Google maps - Reconstruction of the road of republican significance 'Kyzylorda-Pavlodar-Uspenka- the border of the Russian Federation' section 'Kyzylorda-Zhezkazgan km 12-424, section 76 -127 km, EIA 26-05-61/12-00C, 2020, Annex 1

The route of the proposed road is aligned with, and follows the current road, making maximum use of the existing roadbed. The proposed road will be widened in the planned locations of the toll plaza and the transitional speed lanes. The nearest residential area is located at a distance of 279 m from the section to be reconstructed. The road section will be reconstructed along the existing road alignment, preserving the engineering communications laid along the road.

The road corridor runs on relatively flat terrain in a steppe / desert landscape. The area surrounding the road is partly used for non-intensive herding. Kyzylorda region is mainly arid and largely devoid of vegetation.

The road is divided into six sections with a total length of 203.881 km without the Kyzylorda bypass (14.585 km, Category I). The road will be classified as a Category II road according to the Law of the Republic of Kazakhstan on Motorways (July 2001 #245 with changes and

additions on 02.07.2020), the legal Right of Way (RoW) for this type of the road is 20 m from its centre on each side.

A summary of the road sections is provided below.

- Section 1: 12-24 km (length 25.908 km includes Kyzylorda bypass section);
- Section 2: 24-76 km (length 53.551 km);
- Section 3: 76-127 km (length 50.114 km);
- Section 4: 127-156 km (length 28.335 km);
- Section 5: 156-186 km (length 30.010 km); and
- Section 6: 186-216 km (length 30.548 km).

The road will be upgraded from Category III (Category IV in some sections) to Category II. Some of the key road design characteristics are presented in Table 1-1 below.

**Table 1-1 Estimated Number of Facilities and Areas along the Road**

	12-24*	24-76	76-127	127-156	156-186	186-216
Road Category	II	II	II	II	II	II
Length (km)	11.323	53.551	50.114	28.335	30.010	30.548
Off ramps	13	11	11	6	6	7
Cattle underpasses	3	-	2	-	-	1
Rest areas	2	1	2	1	1	1
Bus stops	2	-	-	-	-	-
Bridges	2	-	-	-	-	-
Intersections	-	-	-	-	-	-

\* **Note:** this section connects to Kyzylorda bypass. Although not directly part of this E&S Assessment and NTS, the bypass road design features are: Category IB, length 14.585 km, 2 off ramps, 3 cattle underpasses, 1 bridge and 2 intersections.

### Section 1: 12-24 km

Section 1 starts at 12 km outside Kyzylorda. This section is in Syrdariya District and the main administrative centre is Terenozek, an urban-type settlement. The land along the alignment is a predominantly undeveloped sandy area devoid of vegetation. The land in this section of the road is sparsely populated, with around ten residential buildings. The houses will be outside of the RoW zone, however they may potentially be affected as a result of dust and noise resulting from construction activities, and their access rights may potentially be impacted.

Section 1 of the road does not cross any major settlements, households are sparse and livelihoods are associated with agriculture and a brick works. There is a café within this section which is close to the alignment (within 40 m) and a number of non-residential buildings.

Three graveyards and a nearby parking area are situated along this section of the road.

Figure 1-2 below shows Section 1 of the road and the design features.



**Figure 1-2 Road Section 1 (12-24 km)**



**Source:** Conclusion of state expertise № 01-0043/21 dated 26.01.2021.

## Section 2: 24-76 km

Section 2 of the road passes through both Syrdariya and Shieli Districts. The land along the road in this section is predominantly used as agricultural land; for farming, grazing of livestock and pasture cattle breeding. Several households are situated along this section of the road. The residential houses will be outside of the RoW zone, however they may potentially be affected as a result of dust and noise resulting from construction activities, and their access rights may potentially be impacted.

Katym Well is located within 320 m south of the road. There is also land along this section used for temporary paid long-term land use for the extraction of loam.

Figure 1-3 below shows Section 2 of the road and the design features.

**Figure 1-3 Road Section 2 (24-76 km)**



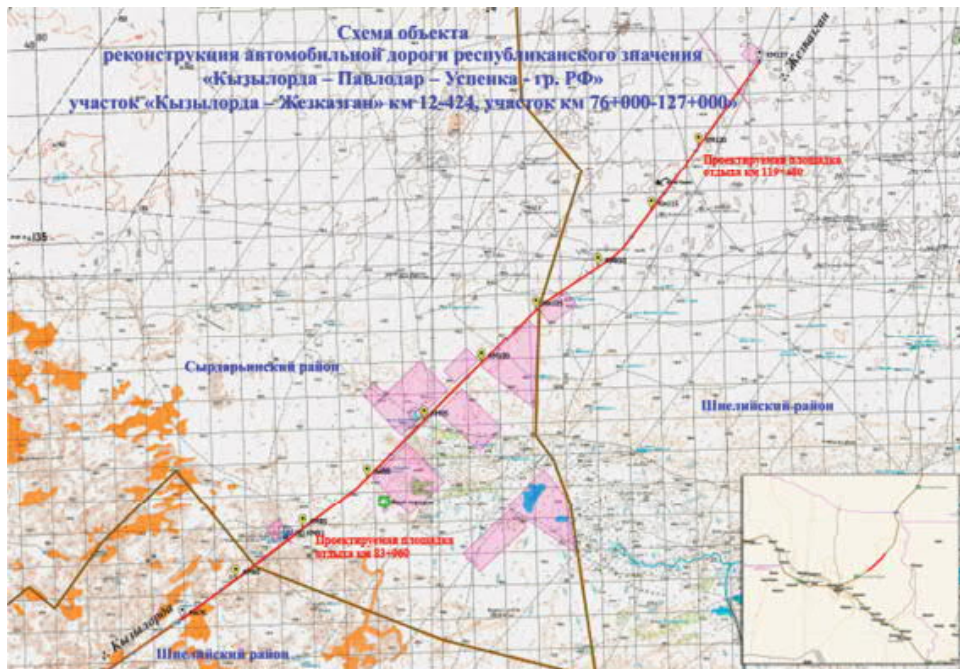
**Source:** Technical report "Technical survey of the current condition of the road and associated infrastructure for the project 'Reconstruction of the road of republican significance A-17 'Kyzylorda-Pavlodar- Uspenka-border with Russian Federation' section 24-76 km"

### Section 3: 76-127 km

Section 3 of the road also passes through both Syrdariya and Shieli Districts. This area is even more sparsely populated, although several households were observed along the road. The residential houses will be outside of the right of way zone, but may potentially be affected by dust, noise and access restrictions during construction activities. The route runs through farming and seasonal pastureland, with several memorials/graveyards, a café with a recreation area and a designated parking area.

Figure 1-4 below shows Section 3 of the road and the design features.

**Figure 1-4 Road Section 3 (76-127 km)**



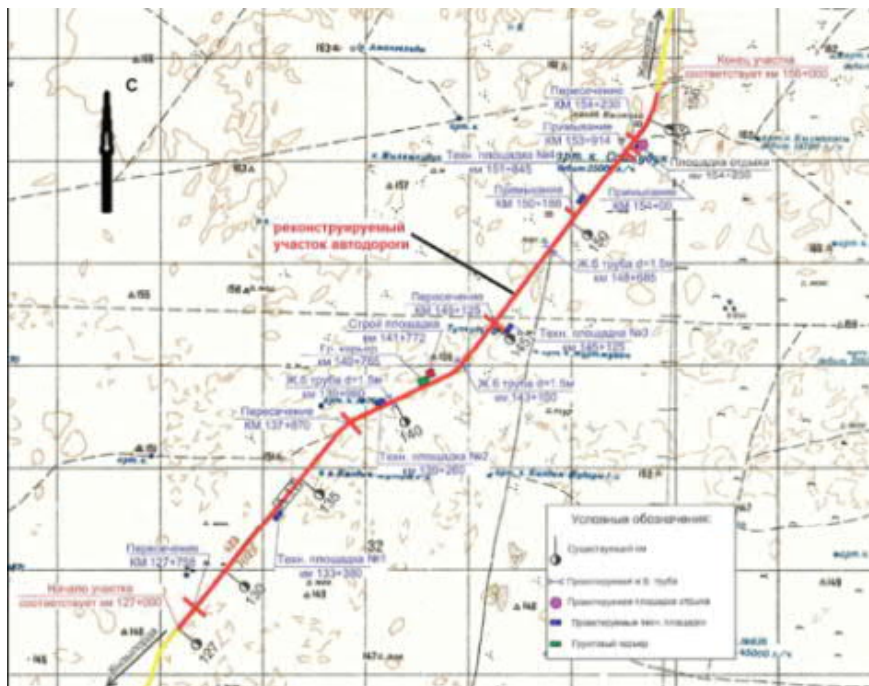
**Source:** Reconstruction of the road of republican significance 'Kyzylorda-Pavlodar-Uспенka- the border of the Russian Federation' section 'Kyzylorda-Zhezkazgan km 12-424, EIA section 76 -127 km.

### Section 4: 127-156 km

Section 4 is located within the Shieli District. Land in this section is used for livestock grazing. There were no households observed in this section. Two graveyards/memorials are situated along this section of the road. A petrol station and Sankuru café with a parking area are located at about 153-4 km.

Figure 1-5 below shows Section 4 of the road and the design features.

**Figure 1-5 Road Section 4 (127-156 km)**



**Source:** Conclusion of state expertise № 01-0574/20 dated 03.12.2020.

### Section 5: 156-186 km

Section 5 passes through both Syrdariya and Shieli Districts. Land in this section is used for farming and seasonal pastureland. Two households (both over a 1 km distance from the road alignment) and a café are present along this section.

Figure 1-6 below shows Section 5 of the road and the design features.

**Figure 1-6 Road Section 5 (156-186 km)**



**Source:** Conclusion of Archaeologic expertise No.AEC-180 dated 31.10.2019. Appendix 1.

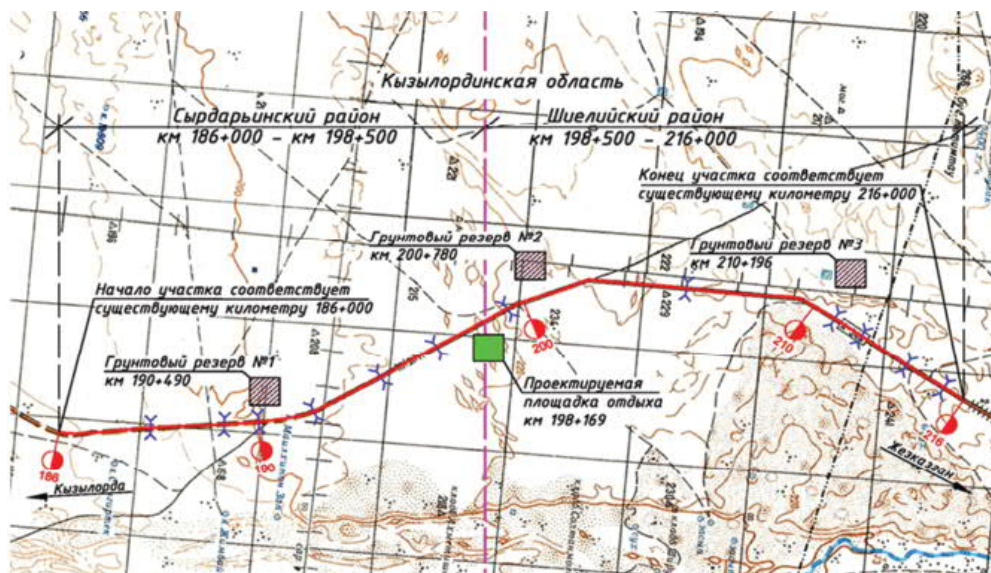


## Section 6: 186-216 km

Section 6 also passes through both Syrdariya and Shieli Districts. Land in this section is used for farming and seasonal pastureland. In addition, a quarry, a service station with parking, a café and a graveyard/memorial are situated along this section.

Figure 1-7 below shows Section 6 of the road and the design features.

**Figure 1-7 Road Section 6 (186-216 km)**



Source: Conclusion of state expertise № 01-0550/20 dated 24.11.2020.

## Summary of Existing Features

Table 1-2 below summarises the key facilities located along the road.

**Table 1-2 Estimated Number of Facilities and Areas along the Road**

Facility	Within approx. 30-50m distance from the road	Further out from the road boundary (>50 to approx. 500m)
Petrol Station	2	
Cafe	5	
Houses	1	14
Parking	5	
Graveyards / memorials	0	9
Quarry	1	
Katym Well	0	1

## 2. Background

### 2.1. Rationale for the Project

The road was built in the 1970s for Heavy Goods Vehicles (HGVs) up to 6 tons and no major repairs have been carried out since. The road surface is in a poor condition with numerous potholes, holes and cracks. There is significant deformation of pipes and subgrade, and culverts require reconstruction and widening. Due to the development of the region, increasing traffic intensity and the number of heavy load cargo vehicles, the rate of road deterioration has been accelerating significantly. In addition, the existing road does not meet the safety requirements due to insufficient width of the carriageway and road safety technical requirements for the existing traffic demand. Some parts of the road are now considered completely unsafe and dangerous.

The proposed 204 km EBRD funded road section “Kyzylorda – Zhezkazgan” is located in Syrdariya and Shieli Districts of Kyzylorda region. This is the only road connecting the cities of Zhezkazgan and Kyzylorda. The upgrade of the road is of great importance as Kyzylorda is main rice producer to the south of the country and Zhezkazgan is the country’s copper capital. Furthermore, the road upgrade will improve transport connections in the Republic of Kazakhstan and access to Central Asia, providing an important inter-regional road for the transport of goods and passengers. It is a connector road to the key trade-enabling Central Asia Regional Economic Cooperation (CAREC) Program’s Corridor 1 in the south of the country and the Centre-North-border of Russian Federation corridor in the north.

Once reconstructed it will offer the shortest transport link for transit flows from Central Asia to the Russian Federation, as well as the socially significant route for the very sparsely populated and economically isolated settlements along the road. The reconstruction of the road is prioritised by the government as part of the regional Covid-19 crisis response to provide direct connectivity between the regional cities to improve accessibility to social and economic opportunities.

The road is currently a two-lane Category III road (Category IV in places) under Kazakh road standards. The rehabilitation will result in a road to the higher technical Category II. The design includes an asphalt-concrete surface, which will have a positive impact on the environment as it will significantly reduce dust formation. It will also significantly improve traffic conditions and reduce associated emissions, as well as reduce the likelihood of accidents and consequential pollution as a result of fuel leaks.

In summary, the project benefits will include:

- Improved transport links;
- Reduced travel time and increased transit;
- Enhanced experience of road users and public transport passengers;
- Improved road safety, with a reduction in road accidents;
- Employment of workers in the region, particularly during construction. There will be direct, indirect and induced jobs (jobs created through project workers and employees’ spending/expenditure);
- Regional economic development relating to agricultural and industrial activities and generally increased investments in the region; and
- Improved socio-economic living conditions in the region.

## 2.2. Legal Aspects and Compliance

For the Kyzylorda-Zhezkazgan road, a feasibility study has been undertaken and the final design is now completed.

National EIAs (OVOS) have been developed for the road sections in accordance with the rules, regulations and standards of the Republic of Kazakhstan for the design and construction of roads. State Environmental Expertise Positive Conclusions on the EIAs were obtained between November 2020 and January 2021.

An independent gap analysis review of the national EIAs and other key documentation has been undertaken against EBRD's Performance Requirements (PRs), European Union (EU) standards and international best practice. The gaps identified have been used to develop an ESAP for implementation, and a disclosure pack comprising this NTS and a SEP in English, Kazakh and Russian.

The SEP provides a framework for consultation activities and project disclosure information including the identification of potential stakeholders, methods used for consultation activities and the records to be kept.

Potential environmental and social impacts (including community and occupational health and safety) have been identified and mitigation measures have been developed that are presented within the EIA. Further mitigation measures were identified in the gap analysis reviews which have been included within the ESAP as implementable actions. KazAvtoZhol is committed to ensuring that the ESAP is implemented. A summary of the key impacts and mitigation measures are provided in the next section.

## 2.3. Assessment of the Project

The key potential environment and social impacts associated with the road project, including mitigation measures developed during the construction and operational phases are:

<b>Climate and Air Quality</b> <b>Noise and Vibration</b> <b>Water Management</b> <b>Surface Water</b> <b>Groundwater</b> <b>Wastewater Management</b>	<b>Waste Management</b> <b>Geology and Land</b> <b>Ecosystems and Flora and Fauna</b> <b>Geohazards</b> <b>Cultural Resources</b> <b>Visual Landscape</b>	<b>Occupational Health and Safety including labour standards</b> <b>Community Health and Safety including Road Safety</b> <b>Land Acquisition</b> <b>Other Socio-Economic Impacts</b>
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## 3. The EIA Process

### 3.1. Project Design and Regulatory Compliance

National EIAs (OVOS) have been developed for the road sections in accordance with the rules, regulations and standards of the Republic of Kazakhstan for the design and construction of roads. State Environmental Expertise Positive Conclusions on the EIAs were obtained between November 2020 and January 2021.

All of the State Expertise Positive Conclusions require compliance with the requirements of the Ecology Code of Kazakhstan; compliance with emissions limits set within the EIA documents; and quarterly reporting on actual emissions to the Environmental Resources Management and Control department of Kyzylorda District.

The EIAs have been reviewed to identify gaps, which have been addressed with an ESAP that has been developed which includes recommended actions for implementation in order to fully meet EBRD's PRs, EU standards and international best practice.

Key stages in the future will be the issue of invitations to tender for road construction companies, and they will be required to obtain all the necessary permits, including but not limited to:

- Construction permits;
- Water intake permits (where necessary);
- Air emissions limits; and
- Calculations of payments for emissions to air.

### 3.2. Public Consultations and Disclosure and Dealing with Objections

Stakeholder engagement and public hearings are a requirement under Kazakh national legislation. During the preparation period of the Kyzylorda-Zhezkazgan Road project, three public consultations were held in 2020 in accordance with the legislation of the Republic of Kazakhstan.

- In Kyzylorda - February 18, 2020 at the House of Friendship, located on Altynsarin Street, Kyzylorda;
- Syrdariya Region - February 19, 2020 at the House of Culture, located on Kunaev Street, Terenozek; and
- Shieli District - February 20, 2020 at the Arman cinema, Shieli village, RU-6, Kokshoky microdistrict.

Other stakeholder engagement activities have been carried out including interviews, and focus group discussions as listed below. Full details of each consultation are provided within the SEP.

- Community meetings;
- Focus Group Discussions;
- Key Information Interviews;
- Additional interviews;
- Meeting with KazAvtoZhol Regional Branch, Kyzylorda; and
- Meeting with Regional Council.

A SEP has been developed specifically for this project that provides full details of future engagement and includes a grievance mechanism to ensure that there will be effective on-going communication throughout all the stages of the project.



## **4. Summary of Environmental Benefits, Potential Adverse Impacts, Mitigation and Management Measures**

### **4.1. Air Quality**

The EIAs indicated that no specific baseline air quality survey or assessment has been undertaken. However, calculations of the air emissions likely to arise during construction have been undertaken and concentrations are projected to be below the '1.0 MPC (maximum permissible concentration)' required in national legislation at the boundary of the sanitary protection zone (SPZ) for the Project, which is defined as 50 m, in accordance with the Environmental Code of the Republic of Kazakhstan.

During the site visit to Kyzylorda-Zhezkazgan road, the nearest residential area was estimated at 279 m from the alignment but there could be isolated buildings that could be closer and also in relation to the temporary side road that will be used when construction starts. These receptors could be affected by the construction and operation of the Project.

General mitigation measures have been identified for the construction phase of the works. This should be enhanced by additional good practice measures to further reduce the potential effects on receptors.

Traffic modelling data is required to consider whether air quality modelling may be required to evaluate impacts on sensitive receptors during the operational phase. If the air quality assessment results show that concentrations are below the relevant Air Quality Standards (Kazakhstan and EU standards), then no mitigation will be required. If modelling shows high concentrations and/or the exceeding of Air Quality Standards due to the Project, then additional mitigation measures will be required.

The requirements above are included in the ESAP.

### **4.2. Noise and Vibration**

The identification of noise and vibration receptors along the route alignment has not been undertaken. However, general mitigation measures have been identified for the construction and operational phases.

Sensitive noise and vibration receptors are likely to include; the properties and settlements either adjacent to, or, in the immediate vicinity of the route alignment. The EIAs refer to several settlements in the area, however the proximity of these settlements from the Project is not stated. A review of mapping shows that there are some buildings near to the route. There will also be sensitive receptors close to the temporary construction areas that need to be considered, once the location of these areas has been selected by the contractors.

It is recommended that a number of steps are undertaken with regards to preventing adverse impacts associated with noise and vibration, including identification of potentially sensitive receptors, undertaking baseline noise monitoring, assessment of anticipated noise and vibration levels during construction and noise and vibration monitoring during construction.

An operational noise modelling assessment should be conducted and should consider traffic noise as well as the traffic numbers and composition. The assessment could identify the need for mitigation in the form of noise screening. A noise screen may also slightly reduce air pollutant concentrations.

The requirements above are included in the ESAP.

#### **4.3. Resource Efficiency**

The EIAs identify some of the materials required for construction, alongside the requirements they must meet in terms of regulatory documents, however the quantities of materials and where they will be sourced is not described. It is recommended that a Resource Efficiency Technical Note (or equivalent) is produced to summarise the options appraisal for energy use, water use, use of other resources, materials use and recovery and reuse of waste. The Technical Note will be considered supplementary EIA information. This should also identify sources of construction materials close to the road to reduce the adverse effects associated with the transportation of materials.

The requirements above are included in the ESAP.

#### **4.4. Greenhouse Gases and Climate Change**

The EIAs do not acknowledge or assess projected Greenhouse Gas (GHG) emissions associated with the construction and operational phases of the Project. This is a requirement in accordance with the EU EIA Directive and EBRD Performance Requirement 3 (PR3). It is proposed that a GHG and climate change assessment is produced.

The vulnerability of the Project to climate change has not been considered within the EIAs. The adaptive capacity of the project (the ability of the road to accommodate projected impacts of the risks arising from climate change with minimum disruptions or costs) needs to be determined through a Climate Change Risk Assessment.

The requirements above are included in the ESAP.

#### **4.5. Water Use and Wastewater**

During construction, non-potable water will be used primarily for spraying the ground to prevent dust pollution. There will also be a need to store water for fire extinguishing purposes.

The EIAs for some sections of the road indicate that non-potable / construction water will be sourced from channels and wells along the Project route; from newly drilled wells and from the Saris river, with supply by road tanker in some locations. The exact locations at which water will be sourced / transported from is not known. This is an arid area and it is unclear whether these sources have sufficient flow to provide the volume required.

A calculation of the volume of potable and non-potable water required, and assessment of available sources, should be undertaken to ensure sufficient resources are available. It is important to identify the current use of these resources by households and cattle, to ensure their water supply is not adversely affected. This calculation and study is required to understand the effects on water resources and current users of those resources. Consideration of practical measures to reduce water use and wastewater generation during the construction of the Project should be applied.

Bottled drinking water will be delivered to the sites by vehicles, and measures to store water hygienically are included in the EIAs. Appropriate collection, storage and disposal of the wastewater bottles must be arranged by the construction contractors.

All appropriate permits for the use of non-portable (technical) water must be in place (e.g. abstraction permit etc.) prior to construction of the project.

The EIAs state that domestic wastewater generated during construction will be collected in septic tanks and removed from the site by licensed contractors. Water used for dust

suppression will evaporate, and therefore will not require treatment. Further detail on how construction wastewater and surface water will be collected, treated and managed will need to be developed.

The Project includes the provision of rest areas with toilet facilities. The water requirements and wastewater requirements for these facilities will need to be assessed, to ensure sufficient water is available from a suitable source and that wastewater is disposed of in a manner that will not adversely impact on groundwater or surface water resources.

The Project will not discharge any wastewater directly into any surface water bodies.

The requirements above are included in the ESAP.

#### **4.6. Waste**

The EIAs provide information on the volume of topsoil that will be excavated, an overall figure (no breakdown) for construction waste volume of solid household waste from the construction compounds (with a breakdown by material type); and hazardous waste (paint tins and oiled rags). However, there is no detailed estimate or assessment of the likely significant effects of wastes.

General mitigation techniques are outlined, but these are high level, and it is not clear at this stage which landfill sites/ contractors will be used and if they hold appropriate licences.

A baseline study is recommended to identify suitable options and appropriately licenced facilities for the recovery, reuse and disposal of wastes and mitigation measures will need to be identified to reduce adverse environmental impacts associated with waste. Mitigation measures to reduce adverse environmental impacts associated with waste should be identified. In addition, a design site waste management plan and materials management plan should be developed for the Project. Measures should follow a hierarchy of waste minimisation, reuse of waste on site, waste segregation, and recycling, with appropriate disposal only done where no alternative is available.

Licensed facilities should be used for the disposal of construction waste and other waste streams, including hazardous waste, and they should be identified prior to the commencement of construction. All materials and wastes stored should be quantified and have containment measures in place, such as for the storage of oils. All waste will be safely disposed of in licenced facilities. Contractors should obtain a chain of custody for all waste removed from the site.

The requirements above are included in the ESAP.

#### **4.7. Contamination**

The EIAs mention chemical analyses of soils and outline the presence of soluble salts but do not state whether human health related testing has been undertaken. General mitigation measures to avoid contamination during construction have been outlined. The high salinity of the soil has been identified as a factor which will need to be addressed in the design, including the types of material used for construction due to the potential for corrosion and soil instability.

It is recommended that a baseline study should be undertaken to confirm the presence of contaminated soils and the presence of sensitive receptors, including surface water features. Implementation of monitoring during the construction phase should take place.

The requirements above are included in the ESAP.

#### **4.8. Natural Environmental Hazards**

The EIAs contain limited information on earthquake risks but do not consider the risks associated with other natural hazards such as landslides, adverse weather, soil instability and erosion or the design and/or mitigation measures that are required to reduce those risks to as low as is reasonably practicable.

An additional baseline study is recommended to expand upon and explain the limited earthquake risk assessment in the EIAs, and to include assessments relating to other natural hazards.

The requirements above are included in the ESAP.

#### **4.9. Biodiversity and Living Natural Resources**

The EIAs provide a summary of the flora and fauna within the region and state that there are no specially protected areas in close proximity to the Project. However, there is no descriptive methodology for the surveys or how these conclusions were drawn. No significant effects are identified for biodiversity within the EIAs.

For flora, the common and widespread assemblage, together with the limited construction footprint and temporary nature of works means that overall effects are likely to be limited. The possible exception to this is in relation to saxaul species, areas of which will be lost in some sections and transplanted in others. The EIAs state that the project will require the removal of 218 ha of vegetation (saxaul tree and tamarix). It is recommended that for all vegetation removed during construction works along the proposed road where possible viable vegetation should be replanted.

Faunal impacts are identified related injury / mortality to individual animals during construction and operation, and loss of habitat during construction, but these are not considered to result in significant effects. As a result, there is very little specific mitigation recommended within the EIAs. Reference is made to general good practice principles such as preserving habitat and prohibiting hunting by construction workers. Sections of the existing road where animals are known to cross during migration (assumed to be Saigas) will have reduced embankment profiles created for 1 km sections to allow animals to cross more easily; these sections will also be subject to road signs and speed limits (60 km) in an attempt to minimise animal collisions.

The EIAs should be updated to include additional baseline studies/monitoring, which should inform additional mitigation measures as required. In addition, additional studies should be undertaken to confirm the status of biodiversity across the Project Zone of Influence (Zol), standard construction mitigation measures should be included in the Construction Environmental and Social Management Plan (CESMP), and the presence/absence of invasive plant species should be confirmed.

The requirements above are included in the ESAP.

#### **4.10. Cultural Resources**

The EIAs state that there are no historic and architectural monuments in the region of construction and an archaeological examination of each of the six road sections was undertaken in 2019. No historically valuable artefacts were found. Approvals of the conclusions of archaeological expertise were obtained from the Department of Culture, Archives and Documentation of Kyzylorda Region (DCADKR), although approval for one section (127-156 km) is still required.



As the Project is considered as reconstruction, and archaeological examinations have not identified any artefacts, the reports suggest that the risk to buried heritage is low. However, a procedure/plans for chance finds should be implemented.

There are several road accident memorial sites along the road. If any memorial sites need to be relocated further from the centreline of the road, this will need to be undertaken sensitively, and measures taken to identify and liaise with those who have established them, where possible. For those that will remain in situ, it is necessary to ensure that the access to them will not be blocked. Mitigation measures have been proposed to preserve memorial sites along the road and, if necessary, to identify the appropriate relocation processes with the informed consent of the owner of the memorial sites.

The requirements above are included in the ESAP.

#### **4.11. Landscape and Visual**

The EIAs do not identify visual receptors along the route alignment or identify mitigation measures with regards to visual impacts and no information on the sensitivity of the landscape to change is provided. The Project is located within the Kyzylorda region, mainly within the Turan lowland. The landscape is flat and open, with grassland and low-lying vegetation (up to 20 cm in height), and long distance views.

Mitigation measures will need to be recommended to avoid and minimise adverse visual impacts. Where these are identified, including a study to identify visual receptors in advance of construction activities, screening of construction activities in proximity to receptors, and sensitive landscaping (including replanting of bare area of soil) that reflect the flat and open character of the environment should be undertaken.

The requirements above are included in the ESAP.

## **5. Summary of Social Benefits, Potential Adverse Impacts, Mitigation and Management Measures**

### **5.1. Road Safety**

The design of the road should be in accordance with Kazakhstan Construction Norms and Rules (SNiP) and good international road safety engineering principles. The road design includes a range of road safety features. Features including pedestrian crossings, bus stops, enforcements, raised rib lining, separation and road restraint barriers have been included in the design. An independent road safety audit has been undertaken and recommendations made. The findings of this study should be reviewed, and the recommendations implemented.

The requirements above are included in the ESAP.

### **5.2. Community Health and Safety**

During construction, there could be disruption caused by reduced access to roads, limited livestock crossing, and noise and dust associated with construction works. From a community health and safety perspective, it is important that individual construction contractors have their own plans and procedures to raise awareness of scheduled works resulting in disruption of traffic and allocate adequate road signs to ensure safe traffic. In case of lane or road closures, stakeholders such as public transport companies, road users and local residents should be notified so they can plan timetables, trips and schedules accordingly.

Plans will be developed by the construction companies to minimise accidents and incidents resulting from road works. The increase in construction vehicles and other heavy goods vehicles carrying construction materials will result in increased noise and dust in the area, and likely disruptions in traffic or road closures.

Gender responsive design features should be implemented to address potential security risks for women and girls. For example, where bus stops are built along the alignment, sufficient lighting should be incorporated into the design. This is included within the ESAP.

In addition, the planned construction camps may potentially cause local disturbance for communities. If not mitigated, there could be an issue associated with workers' influx particularly if a foreign contractor is to be used. Workers' influx could trigger many issues such as increased crime, alcoholism, drug abuse resulting from newcomers (mainly male) into the project area. A code of conduct, camp and influx management plans will be developed to mitigate such impacts if they arise.

The proposed improvements to the road surface will reduce the damage to vehicles, and the risk of vehicles overturning, due to potholes, or swerving to avoid oncoming vehicles. The Project is likely to increase the amount of freight transport and therefore the risk of hazardous materials being spilled.

The requirements above are included in the ESAP.

### **5.3. Occupational Health and Safety**

Occupational health and Safety (OHS) matters will require management during the planning and implementation of the Project to ensure compliance with national legislation and international best practice. Management plans and procedures will also need to cover safety of associated facilities such as concrete plants, bitumen plants, quarries, construction camps, maintenance facilities, etc.. During the operational phase of the road, the activities of road maintenance personnel will also require OHS management.

To ensure effective contractor management, tender documents will be prepared that will incorporate all of the mitigation measures, including clearly defined roles and responsibilities, that contractors should either implement or be aware of. A review of labour and social policies should be undertaken and incorporated into contractual arrangements with contractors. The contractor selection process should include criteria for evaluating past performance. One or more contractors will be appointed for the road construction, and there will also be the appointment of project supervision roles in the future. Project management will be undertaken by the PIU. Suitably qualified personnel should be appointed to monitor the different contractors undertaking construction activities. Independent audits should be carried out to ensure that environmental, health and safety standards are complied with and that social issues, such as the terms and conditions of employment and the standards of the workers' camp are compliant with EBRD requirements.

Details about the employment procedures and workers' conditions in construction camps and the site are not yet known. However, it is expected that the Project will comply with the Labour Code and will ensure that all employees, including permanent and temporary workers, will be provided with a contract.

The requirements above are included in the ESAP.

#### **5.4. Land Acquisition and Resettlement**

The reconstruction of the road will use State land for the road development. All the relevant certificates for permanent use of the lands for road development have been obtained by the client. Based on the field observations and map of the new route, it is not expected that the project will relocate any individuals and thus no physical displacement is anticipated. Based on the current design, no households or structures were identified within the Right of Way (RoW) zone.

However, while no physical displacement is foreseen, the household survey carried out found that approximately 25 households currently use the state-owned land that will be allocated for the road upgrade. These lands are currently rented and used for grazing cattle on a seasonal basis.

It will be important that for those that rent land, they are also appropriately compensated and informal land use is also considered. A Land Acquisition and Resettlement Framework (LARF) providing an overview of the compensation framework has been developed which KazAvtoZhol will develop into a Land Acquisition and Livelihood Restoration Plan (LALRP). It is also recommended that the implementation of the LALRP is independently monitored and audited after completion. Temporary facilities including a side road, and service facilities such as borrow pits, construction camps, bitumen / concrete production sites, and maintenance facilities will also be required. The locations for these have not yet been precisely determined but will also be on state-owned lands. The LALRP will also address any potential land acquisition and livelihood impacts associated with proposed temporary facilities.

#### **5.5. Other Socio-Economic Considerations**

The Project is unlikely to result in significant long-term adverse social or gender impacts. Based on the current design of the road, there will be no physical displacement, and no households or facilities live within the road RoW (20 m either side from the centre of the road). The RoW zone area will be reinstated and returned to the State once the construction is completed. The majority of the impacts will be related to the construction activities (i.e. noise, dust, increased construction traffic, influx of workers, access rights) and will not continue during the operational phase of the road.

The construction related impacts may have a slightly more significant impact on vulnerable groups who by virtue of age, gender, physical and mental wellbeing may experience the impacts differently. The project will develop temporary side roads during the construction stage to ensure flow of the current traffic. Vehicles will use these side roads while the main road is under construction. It is anticipated that the side roads could potentially provide some impact on community rights of way particularly in terms of access to public spaces such as local businesses, workspaces and recreation areas. In addition, there is livestock grazing that is undertaken on pastureland along the route of the road and as such, side roads could provide risks for livestock crossing. However, livestock was observed during field observations to be supervised by herders and as part of the design there are a number of underpasses along the road alignment that can be used for animal crossing.

At this stage, it is not known yet whether foreign companies will be contracted for construction of the road. However, if foreign contractors are to be used, it is envisaged that there will be an influx of workers within the project area. The influx of these workers could pose a significant impact on the local population, particularly women. Construction camps are planned as part of the current design, however the number and location of these are currently unknown. The management of the workers' camp and its vicinity is of crucial importance to avoid any unnecessary stress on the population. A detailed assessment of the impacts of proposed arrangements for worker accommodation, either in local communities or in dedicated camps, should be conducted, and options selected to ensure minimum strain on local facilities and reduced community disturbance. Workers' camps must be compliant with EBRD / International Finance Corporation (IFC) standards.

It is recommended that employment opportunities for women to work on the Project and the related infrastructure are supported. This includes non-traditional positions such as engineers, machine operators and any other positions where qualified women could apply. In case of significant number of resident female workers and employees, the workers' camps should allow for separate facilities for men and women to avoid any unwanted contact or attention. A Construction Camp Management Plan, a Code of Conduct for the workers and a gender policy that includes sexual harassment is to be developed and implemented prior to any construction activities starting. In addition, public consultation should be carried out to reach agreement on final location of camps and also to ensure that sufficient facilities (health, transport, water supply, electricity) is available for the camp workers.

It is likely, though, that certain business opportunities will be created by the workers' camp and the project will also create a competitive job market for local people. The road itself will facilitate safer and quicker transport of goods and services both on a national and international level and will support the local farmers in getting their produce to the markets in bigger cities more efficiently. In the long term, there will be opportunities for businesses and start-ups to develop and contribute to an improved local and regional economy. The road will also provide better access for people working in local industries and will reduce road accidents.

The Project would potentially cause local economic improvements through spending incurred by construction workers and contractors within the Project area. Local businesses such as cafes and petrol stations would benefit from the increased expenditure and it is anticipated that several induced jobs would potentially be created. There are a few cafes, petrol stations, and other ad hoc business (e.g. brick works, quarry), which could also provide catering facilities and accommodation/resting areas to workers.

The requirements above are included in the ESAP.



## 6. Communications

### 6.1. Stakeholder Engagement Plan

A SEP has been prepared identifying relevant stakeholders, defining communication channels and plans regarding the reconstruction of the road and its associated facilities.

The SEP aims at summarising the methods, procedures, policies and activities that will be implemented to inform stakeholders, in an inclusive and timely manner, about the potential impacts of the Project.

The SEP contains a stakeholder identification table where all relevant stakeholders are identified, detailing the most appropriate communication channels and strategies, information disclosure requirements and grievance processes that will be adopted. To promote gender equality and inclusion, female only focus group discussions are a requirement of the Project. If there are stakeholders not included in the SEP, they can contact the Client to receive information about the Project and be added to the stakeholder engagement programme.

The SEP includes a programme of immediate consultation and engagement activities required to address current stakeholder concerns, as well as regular consultation and disclosure activities throughout the project life cycle. In addition, the SEP has a grievance mechanism, the details of which are provided in the next section.

### 6.2. Grievance Mechanism

The Grievance Mechanism (GM) provides two levels of resolution of complaints on projects of the road sector, implemented under the leadership of the Committee for Roads (CoR): Complaints Committee (CC) at the regional (oblast) and central (Astana) levels in accordance with the Guidelines for grievance mechanism for environmental and social protection measures of the road sector projects, approved by the CoR in August in 2014. The Complaints Committee (CC) is composed of members appointed by the CoR, local government offices, and KazAvtoZhol. The CC at regional and central levels are chaired by managers responsible for the overall operation of the GM and effectiveness and timely implementation, while the coordinators are responsible for involvement of the parties concerned and coordination of the CC at regional / central levels. An overview of the regional and central level grievance mechanism is presented in Figure 6-1 below.

### 6.3. Contacts

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The local authorities and the Community Liaison Officer (CLO) will collate any comments and feedback associated with this project and will document these.

All comments received will be reviewed in accordance with the requirements set out in the SEP. All communications will be reviewed for the feasibility to make changes to satisfy the request and interest and the communicator will be informed of the outcome.

**Figure 6-1 Grievance Mechanism**

