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# ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT GAP ANALYSIS REVIEW







Kurty Buribaytal Road Project, Kazakhstan  
Final Report

31/03/2015

Revised: 2015-06-15

Confidentiality: Confidential

# Quality Management

Issue/revision	Issue 1	Revision 1	Revision 2	Revision 3
Remarks	Draft for Review	Draft Final	Final	
Date	March 2015	March 2015	June 2015	
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Project number	70011099	70011099	70011099	
Report number	Draft Version 1	Draft Final	Final	
File reference	E09\projects\2015	E09\projects\2015	E09\projects\2015	

Cover photo: Mid-Section of 81 km of the Kurty Buribaytal Road

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Kurty Buribaytal Road Project, Kazakhstan

31/03/2015

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# Abbreviations

ADB	Asian Development Bank
EBRD	European Bank for Reconstruction and Development
EHS	Environmental Health and Safety
EHSS	Environment, Health, Safety and Social
EIA	Environmental Impact Assessment
EMMP	Environmental Management and Monitoring Plan
EMS	Environmental Management Plan
ESAP	Environmental and Social Action Plan
ESDD	Environmental and Social Due Diligence
ESIA	Environmental and Social Impact Assessment
EU	European Union
FI	Financial Intermediaries
H&S	Health and Safety
IBRD	International Bank for Reconstruction and Development
IFC	International Finance Corporation
IFIs	International Financial Institutions
ILO	International Labour Organisation
IMA	Independent Monitoring Agency
IMC	IMC Worldwide Ltd
KazDorNII	Kazakhstan Road Research Institute
LRP	Livelihood Restoration Plan
MPC	Maximum Permitted concentrations
NO2	Nitrogen Dioxide
NTS	Non-Technical Summary
PWC	Project Management Consultant
PR	Performance Requirement
RAP	Resettlement Action Plan
SEP	Stakeholder Engagement Plan
PIU	Project Implementation Unit
PPE	Personal Protective Equipment
PSC	Project Supervision Consultant
STIs	Sexually Transmitted Infections
USD	US Dollars
WB	World Bank
WSP	WSP UK Limited

# Executive Summary

## Background

WSP UK Limited (WSP) has been commissioned by the European Bank for Reconstruction and Development (EBRD) to support with an Environmental and Social assessment for the Category A Kurty Buribaytal Road Project in Kazakhstan ahead of potential financing by EBRD to reconstruct a 81 km section of the 228 km “Kurty Buribaytal” of the “Centre - South” corridor linking Astana to Almaty.

The proposed investments include the reconstruction and widening of the existing roads, the reconstruction of bridges and upgrading of intersections as well as financing of supervising engineers, implementation assistance to the Project Implementation Unit (PIU) and institutional components.

The 81 km section (Section 2) that EBRD is potentially financing, runs from a point approximately 200km from Almaty to a point 281km from Almaty. The road sections are:

- Section 1: km 2152-2214 (62km)
- Section 2: km 2214-2295 (81km)
- Section 3: km 2295-2335 (40km)
- Section 4: km 2335-2380 (45km)

As well as the EBRD, the other road sections will potentially be financed by other International Financial Institutions (IFIs) that include the World Bank (WB), the Asian Development Bank (ADB) and the Islamic Development Bank (IsDB).

The existing road of Section 2 is located between the villages of Aksuek and Kanshengel in the Zhambyl district of Almaty region which is included in the Transit Corridor Centre-South Project “Astana-Karaganda-Balkhash-Kapshagay-Almaty”. The main road direction is south-east through a semi-desert area.

## Proposed Road Investment

Currently, the road is a Kazakh Category 2 road with two lanes. Due to its age and traffic loading the surface condition has deteriorated to a poor quality. The 228 km section is the last part of the Astana-Almaty highway which is to be rebuilt as part of the road programme to reconstruct the entire road to meet the Kazakh Category 1b road standard. The proposed work will include the widening of the road from a two lane to four-lane highway with a new concrete pavement, the construction of several new bridges and reconstruction of existing bridges, upgrading of intersections.

The EBRD loan funding that is required has been estimated at USD 200 million which is currently being reviewed by the Committee for Roads (that is within the Ministry of Investment and Development, the government ministry that is seeking the finance), taking into account current road construction costs and any design changes that may be required, although it was reported that this is now finalised and there is no scope for fundamental changes to the design.

## Gap Analysis and Audit Review

A gap analysis has been carried out of the provided project documentation, focusing primarily on the recently provided draft Environmental and Social Impact Assessment (ESIA, dated 2<sup>nd</sup> March 2015). In addition, the audit has involved the review of additional documents which have been made available, an inspection of the road section for which EBRD funding is sought and interviews with key stakeholders.

Although the project is classed as Category A project under EBRD’s Environmental and Social Policy, it is considered that the impacts that have been identified and assessed, can be addressed through mitigation measures as provided in a reasonably comprehensive Environmental Management and Monitoring Plan (EMMP) within the ESIA. However, it is considered that the ESIA needs some further work to meet European Union (EU) standards and therefore a number of additional recommendations are proposed based on the ESIA gap analysis and general audit findings which are included in an Environmental and Social Action Plan (ESAP) to ensure that the project is fully aligned and compliant with best practice, EBRD Performance Requirements and relevant EU standards.

Key actions areas are provided in the table below.

Review Areas	Actions Areas
<b>Institutional EHS Capacity and Management</b>	<ul style="list-style-type: none"> <li>■ Establish organisational capacity – project roles and responsibilities to be clearly defined including confirmation of ZazAutoZhol as the Project Implementation Unit (PIU)</li> <li>■ Appoint contractors following a tender process. Also appoint the Project Management Consultant (PWC) / Project Supervision Consultant (PSC). Ensure sufficient staffing levels</li> <li>■ Develop capacity building programmes for successful project implementation</li> <li>■ Report on ESAP implementation and stakeholder engagement activities and resolution of grievances</li> </ul>
<b>Planning and Permits</b>	<ul style="list-style-type: none"> <li>■ Obtain permits and licenses prior to commencements activities for which the permits are required</li> </ul>
<b>Environmental Performance</b>	<ul style="list-style-type: none"> <li>■ PIU to develop an environmental management system</li> <li>■ Protect, preserve and enable access to sites of cultural significance. Relocate affected sites with informed consent</li> <li>■ Provide revised ESIA or supplementary information to include: <ul style="list-style-type: none"> <li>● Water and wastewater impacts</li> <li>● Baseline noise and air quality data</li> <li>● Materials use and containment measures</li> <li>● Impacts from concrete batching /asphalt plant</li> <li>● Contaminated soil and soil erosion and geohazaeds</li> <li>● Greenhouse gas emission and microclimate impacts</li> <li>● Landscape impacts</li> </ul> </li> </ul>
<b>Health and Safety Performance</b>	<ul style="list-style-type: none"> <li>■ Construct accommodation to meet IFC standards</li> <li>■ Tender documents for the procurement of construction companies should include Environmental Health, Safety and Social (EHSS) performance standards that should be met.</li> <li>■ Carry out independent audits to ensure that terms and conditions of employment and standards of the camp are compliant with EBRD requirements.</li> <li>■ Provide incident reporting procedures</li> <li>■ Develop Occupational Health and Safety Plans</li> <li>■ Develop Emergency Preparedness and Response Plans</li> <li>■ Develop Construction Environmental Management Plans (inclusive of Traffic Management Plans)</li> </ul>
<b>Social and Employment</b>	<ul style="list-style-type: none"> <li>■ PIU to review labour and social policies and incorporate into contracts for contractors</li> <li>■ Encouragement of women involved in contracting and subcontracting organisations</li> <li>■ Ensure access to roads from isolated communities and livestock crossing during construction and also when the road is complete and in full use</li> <li>■ Assess whether there are a suitable number of crossing points for wildlife and herds. Introduce further underpasses and gaps in road with appropriate road safety measures as needed</li> <li>■ Provide adequate worker camp security with consideration for gender issues typical of linear projects. Security to have appropriate experience</li> <li>■ Although no physical resettlement is foreseen, land acquisition should include informal land users and inclusion in the compensation scheme. Temporay aquisition of structures should be re-cultivated and returned to owners. Independent audits of the acquisition process should be undertaken</li> <li>■ Develop and implement a Stake Stakeholder Engagement Plan (SEP) including a Grievance Mechanism with a suitable appointment to manage the implementation of the SEP</li> <li>■ Develop a Non-Technical Summary (NTS) of the project for disclosure in the public domain (with other key documents as specified with the SEP)</li> </ul>
<b>Road Safety Measures</b>	<ul style="list-style-type: none"> <li>■ Implement road safety measures for speed control, cattle crosing, intersection and u-turns, cross sections, roadside hazards, traffic, pedestrians and enforcement (see report by road safety audits)</li> </ul>

These action areas have been provided as implementable ESAP actions that include the resources / estimated costs required, a timetable for implementation and completion of the action and the criteria for successful implementation. In some cases, the costs of these actions are based on the initial review actions and not the follow on implementation costs. The ESAP should be adopted with the EMMP that has already been developed for the ESIA. The ESAP is provided in Appendix D.



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# 1 Introduction and Project Approach

## 1.1 Project Background

The European Bank for Reconstruction and Development (EBRD) is considering providing finance for the reconstruction of a section of the 228 km “Kurdy Buribaytal” of the “Centre - South” corridor linking “Astana-Karaganda-Balkhash–Kapshagay-Almaty”. The road sections are:

- Section 1: km 2152-2214 (62km)
- Section 2: km 2214-2295 (81km)
- Section 3: km 2295-2335 (40km)
- Section 4: km 2335-2380 (45km)

As well as the EBRD, the other road sections will potentially be financed by other International Financial Institutions (IFIs) that include the World Bank (WB), the Asian Development Bank (ADB) and the Islamic Development Bank (IsDB).

The proposed investments include the reconstruction and widening of the existing roads, the reconstruction of bridges and upgrading of intersections as well as financing of supervising engineers, implementation assistance to the Project Implementation Unit (PIU) and institutional components.

The EBRD is potentially financing Section 2 which starts at a point approximately 200km from Almaty and runs for 81 km. (the “Project”).

The existing road of Section 2 is located between Aksuek and Kanshengel villages in the Zhambyl district of Almaty region included in the Transit Corridor Centre-South Project “Astana-Karaganda-Balkhash-Kapshagay-Almaty”. The main road direction is south-east through a semi-desert area.

WSP UK Ltd (“WSP”) has been commissioned by the EBRD to undertake an Environmental and Social Impact Assessment Gap Analysis Review of the Kurdy Buribaytal road project in advance of the potential investment by the EBRD.

## 1.2 Scope of Work

The scope of work is as follows:

- Conduct a gap analysis of the existing Environmental and Social Impact Assessment (ESIA) and other key project documentation against the requirements of the EBRD’s Performance Requirements (PRs) (2014)<sup>1</sup> for an ESIA and current European Union (EU) EIA legislation (updated in 2014). The most significant differences are likely to be related to the Social provisions as set forth in the EBRD PRs, specifically the social provisions of PR1, PR2, PR4, PR5, PR7, PR8 and PR10;
- Review of land acquisition and potential involuntary resettlement and economic displacement impacts that may occur, or have occurred, as a result of the Project. Verify Project documentation relating to land acquisition for compliance with EBRD PR5;
- Review of stakeholder identification, analysis and engagement policy and practices relative to EBRD PR10 for Information Disclosure and Stakeholder Engagement;
- Review of the national EIA for robust social and environmental baseline data to inform Project design decisions, a review of alternatives, to ensure that alternatives were considered for Project design as well as application of the mitigation hierarchy, and the development of mitigation measures (local EIAs often do not provide enough detail in the development of mitigation measures); and,
- Based on the above:

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<sup>1</sup> DIRECTIVE 2014/52/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment

- clearly identify any gaps in the existing documentation and processes relative to the EBRD requirements;
- substantiate how the identified gap(s) could pose a risk to the Project;
- identify a scope of work that would be required to fill the gaps;
- develop an Environmental and Social Action Plan (ESAP); and,
- preparation of a Disclosure Pack comprising a Stakeholder Engagement Plan (SEP) and a Non-Technical Summary (NTS) in Russian, the Kazakh language and English.

This report covers the scope of work above excluding the NTS and SEP. A separate SEP report has been prepared entitled: *“Stakeholder Engagement Plan, Kurty-Buribaytal Road Section 2214-2295 km, Part of the Reconstruction of the ‘Center-South’ Corridor Linking Astana to Almaty, April 2015”* and a separate NTS has been prepared entitled: *“Non-Technical Summary, Kurty-Buribaytal Road Section 2214-2295 km, Part of the Reconstruction of the ‘Center-South’ Corridor Linking Astana to Almaty, April 2015”*.

The ESAP is provided in Appendix D and also as a standalone document.

### 1.3 Objectives

The specific objectives of this review were to undertake a compliance review of the ESIA against EU and National legislation (See Chapter 6). Where there were gaps or deficiencies in the ESIA then supplementary information has been provided where it was accessible and readily available, otherwise recommendations have been made and included with other audit findings and incorporated into a corporate level ESAP to ensure compliance with relevant best practice, corporate, national, EU standards and EBRD Performance Requirements. Key to the review is an assessment of the project against EBRD Performance Requirements, which are presented as follows:

- PR 1: Environmental and social appraisal and management;
- PR 2: Labour and working conditions;
- PR 3: Pollution prevention and abatement;
- PR 4: Community health, safety and security;
- PR 5: Land acquisition, involuntary resettlement and economic displacement;
- PR 6: Biodiversity conservation and sustainable management of living natural resources;
- PR 7: Indigenous people;
- PR 8: Cultural heritage;
- PR 9: Financial intermediaries; and
- PR 10: Information disclosure and stakeholder engagement.

With regard to PR 10, a review of stakeholder engagement requirements and grievance procedures has been undertaken and presented in the separate SEP report which also provides a summary of comments, queries and concerns raised by stakeholders during public consultation meetings and how they have been addressed. The SEP provides a framework for consultation activities and project disclosure including the identification of potential stakeholders, methods used for consultation activities and the records to be kept. The SEP has been developed in accordance with the requirements for a Category A Project (See Chapter 2 for the assessment to determine the categorisation). The SEP will enable the PIU to inform relevant stakeholders of potential impacts of the projects and address concerns that may be raised using a grievance mechanism. The social engagement activities carried out to date are summarised in the SEP, also summarised in this report.

The separate NTS report provides a summary of the Project in non-technical language covering the background and project description, the ESIA process, the environmental and social benefits/impacts, mitigation and management measures and the contact details for communications with a link to the SEP and the grievance mechanism.

## 1.4 Audit Team and Auditee Involvement

The WSP team, including associates, involved in the audit are listed in Table 1 below.

**Table 1: WSP Staff and Sub-Consultants**

Name	Role (Company)
Neal Barker	Project Director and Technical Reviewer (WSP UK Limited)
Scott Beaton	Project Manager and Lead Auditor (WSP UK Limited)
Rachael Bailey	EIA / Roads Specialist (Parsons Brinckerhoff)
Vladimir Merkuryev	Lead in-country EHSS consultant (EcoSocio Analysts)
Ildiko Almasi	Social and Gender Specialist (Gender and International Development Consulting)

The audit conducted in-country was carried out with a separate road safety specialist team from IMC Worldwide Ltd (IMC) comprise Matt Chamberlain, Phillip Jordan and Sasa Jasnica.

## 1.5 Stakeholder Meetings and Sites Visited

The details of the sites visited and meetings held as part of the audit are presented in Table 2 below.

**Table 2: Meetings and Sites Visited**

Site / Meetings	Specific Areas Visited / Meetings held	Date Visited
Meeting	Offices of The Almaty Regional Branch of Joint-Stock company National Company ZazAutoZhol, Almaty	10/3/15
Meeting	Offices of Topgeo, Almaty	10/3/15
Road	Almaty /Kapshagay road works (to provide a view of the approach to contractor safety management in Kazakhstan)	11/3/15
Road	Road visit – full length of the 81 km road (including the prior section of the road that is potentially receiving financing from other financial institutions)	11/3/15
Road	Aksuek town, one of the closest large towns to the Road section	11/3/15
Meeting	Offices of The EBRD, Astana to facilitate a meeting with Kazakhstan Road Research Institute (KazDorNII) in association with Sapa SZ	12/3/15
Meeting	Offices of the Committee for Roads, Ministry of Investment and Development of the Republic of Kazakhstan, Astana	12/3/15

See Appendix A which provides maps that show the 81 km section of road visited.

During the audit, meetings were held with key representatives of various stakeholders involved with the project as listed in Table 3 below.

**Table 3: Meetings with Key Representatives of Various Stakeholders**

Name	Company and Role	Title
Batyr Dadamurzayev	The Almaty Regional Branch of Joint-Stock company National Company KazAutoZhol, which was the PIU at the design (projecting) stage.	Director
Rysbek Zhumagilov		Principle
Mukhanov Aidos	Top Geodezia (Detailed Design Developer)	Director
Yuriy Kozlov		Project Chief Engineer
Kazi M Hasan	Kazakhstan Road Research Institute (KazDorNII) in association with Sapa SZ (ESIA developer and possible future role as PMC (currently PMC for the South West Roads Project))	Team Leader
Zhandos Amanbayev		Project Co-ordinator
Aliya Zeinullina		Environmental Specialist
Ablaliev Satzhan	Committee for Roads, Ministry of Investment and Development of the Republic of Kazakhstan (Borrower and the PIU at the stage of the procurement of the construction works)	Deputy Chairman
Anara Iskakova		Head of External Loans Office
Nurgali Amandykov		Chief expert

## 1.6 Limitations

The work undertaken provides a good overview of the Committee for Roads institutional management capacity of this road reconstruction project and the associated impacts and mitigation of the project but is necessarily limited by the amount of time allocated to the site visit and the staff available during the time spent in-country. There was a good level of engagement with representatives and they were found to be open and responded well to questions.

WSP has based its conclusions and recommendations on the information available, visual observations and the auditee responses. WSP does not and cannot guarantee that the road audited has no environmental or health and safety or social issues or liabilities beyond those observed during the audit. It may be necessary to modify the findings or conclusions presented in this report if additional information becomes available to WSP at a later date. WSP has reviewed reports and considered written records as part of this audit. However, WSP has not verified the content or accuracy of this information and suggest that Committee for Roads does this separately if required.

This report was compiled for the benefit of the EBRD and Committee for Roads only. This report is not intended to be relied upon by third parties without prior written authorisation by WSP.

## 1.7 Reports and Other Information Consulted

The documentation that was provided for information on the project that was consulted as part of this project are provided in Appendix B.

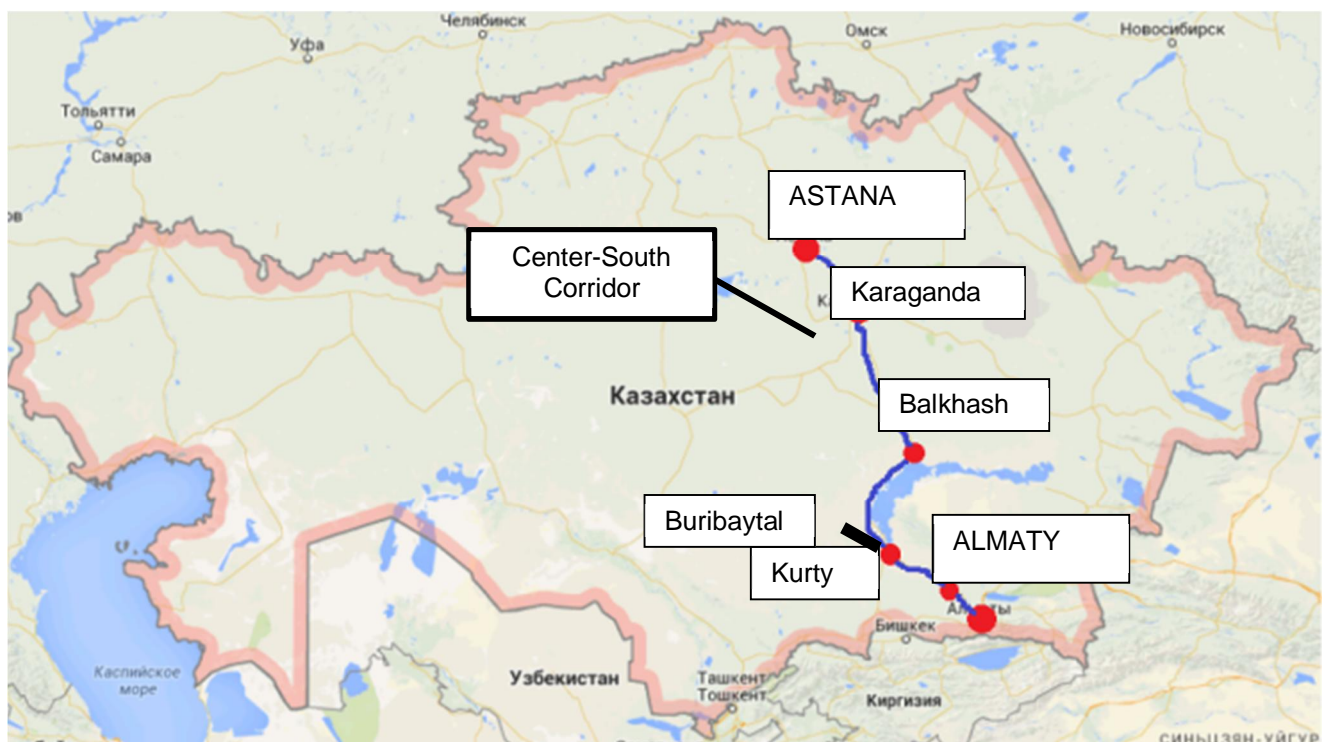
## 2 Proposed Investment and Regulatory Requirements

### 2.1 Proposed Road Investment and Study Area

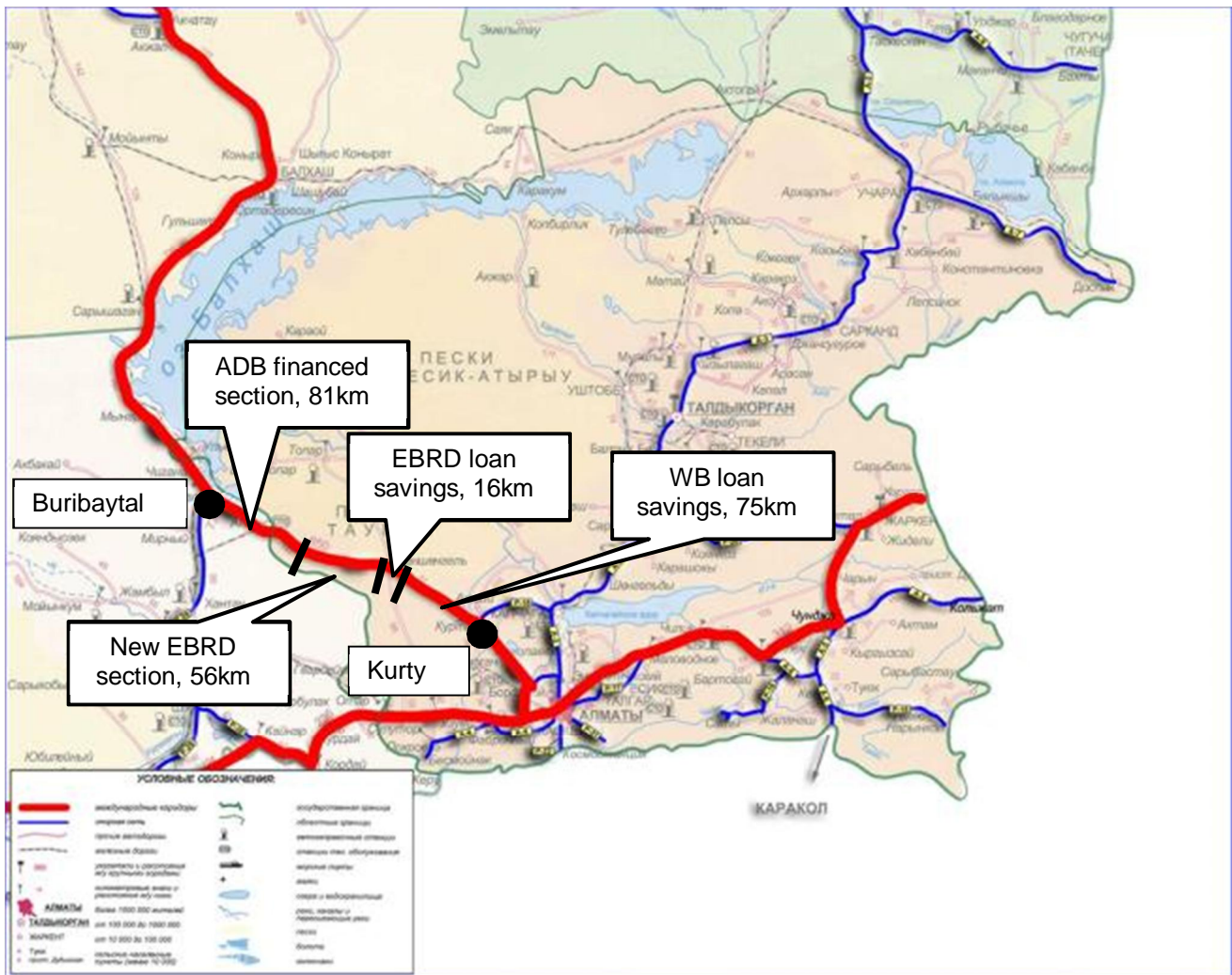
The overall length of the road section connecting Kurty village with Buribaytal village is 228 km (“Kurty-Buribaytal road”). The road represents the last unreconstructed section of the larger transport corridor connecting the city of Astana and Almaty which was reconstructed in 2003 (“Center-South Corridor”). Improvement of Kurty-Buribaytal road section will facilitate the transit of goods and passengers from Almaty to Balkhash, Karaganda and Astana and develop regional trade.

The two maps below (Figures 1 and 2) show Kurty-Buribaytal road as part of the Center-South Corridor and also provide a more detailed view with division between sections offered to the IFIs for financing between Buribaytal village and Kurty village. The exact length of sections offered to ADB and EBRD will be established following completion of the feasibility / design study. It was initially expected however, that the EBRD loan savings will finance approximately 16km and that new EBRD funding will finance an approximately 56km long section, while ADB will finance 81km long section ( $75+16+56+81=228\text{km}$ ). The Government of Kazakhstan has now requested that EBRD provide a loan for the construction of the road “Kurty-Buribaytal” with length of 81 km (Section 2: km 2214-2295).

**Figure 1: Map of Kurty-Buribaytal Road as part of the Center-South Corridor**



**Figure 2: Kurty-Buribaytal Road (Detailed)**



Note that sections provided in the map above are the initial sections that were proposed to be funded. EBRD has now been requested to provide a loan for the construction of the road “Kurty-Buribaytal” with length of 81 km (Section 2: km 2214-2295).

Currently the road is considered a Kazakh Category 2 Road with two lanes along the whole 228 km. The road’s asphalt pavement is now past its effective working life and its condition is deteriorating at a fast rate, due to a combination of traffic loading and the age of the pavement. Reconstruction of the road is now urgently required to improve the ride quality of the road, minimise road user costs and provide a pavement that can be maintained in a cost effective manner. In addition widening of the road will reduce the number of traffic accidents due to the narrow width of the road which forces drivers to cross into the oncoming traffic lane to overtake vehicles. In 2013, traffic between Kurty and Buribaytal varied from 3,060 to 7,277 vehicles per day.

Proposed investments include reconstruction and widening of the existing road (from two lanes to four-lanes, Kazakh Technical Category 1b Road) with a concrete pavement, bridges reconstruction and upgrading of intersections as well as financing of supervision consultants and implementation assistance to the Project Implementation Unit as well as institutional components.

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## 2.2 Detailed Overview

### 2.2.1 Road Rehabilitation

#### Overview

The road design characteristics are presented below:

- Road category – 1b
- Length – 81.0km
- Carriageway width – 15.0m
- Subgrade width – 25.5m
- Number of traffic lanes – 4
- Width of median – 3m
- Maximum width of right of way – 70m
- Maximum rated speed – 120km/hr
- Estimated average speed – 80km/hr
- Bridges – 8 (3 new and 5 existing bridges for reconstruction)
- Pipe culverts – 32
- Box culverts – 37
- Road intersection – 12
- Road junction – 5
- Rest areas – 4
- Bus stops – 2
- Cattle underpasses – 17 (each 4.5m x 2m)
- Type of pavement and the type of coverage – asphalt concrete.
- Type of works - reconstruction

The project is at final design stage with a draft ESIA in place. It was reported that there is no project schedule that provides a timetable for key project milestones. At the time of the site visit, it was reported that the State Expertise (controlling body and then other bodies – environmental, fishing, forestry, archaeology etc) is in the process of reviewing the detailed final design. It was also stated that there is no scope for fundamental changes to the design, although there were procedural means in place to introduce smaller changes including during the construction phase if required.

Although reportedly there is no detailed project schedule of milestones, it is planned that the time scale of the start of construction for all sections is early 2016. The estimated construction period (approved by State Expertise) of each section is 33 months. The EBRD Section (Section 2) will be divided into two construction contracts/Lots with one section of 41 km and another section of 40 km.

A summary of stages that have been undertaken is provided below.

#### Feasibility Study

Under the Kazakhstan regulatory regime the feasibility study and detailed design has been completed, accepted and approved by the State Expertise. The final design is now being determined.

#### Environmental and Social Impact Assessment (ESIA)

A national EIA has been developed in accordance with the rules, regulations and standards of the Republic of Kazakhstan for design and construction of roads. The pre-EIA had been approved by Order № 204-p of the Minister of Environment of the Republic of Kazakhstan" dated 28<sup>th</sup> June 2007. The State Environmental

Expertise Positive Conclusion on the pre-EIA was obtained 22<sup>nd</sup> December 2014, with the following prior approvals:

The Sanitary Epidemiological Service – 2<sup>nd</sup> December 2014,

- The Balkhash-Alakol Basin Water Inspectorate approval – 28<sup>th</sup> November 2014,
- The Department of Consumer Rights Protection of the Ministry of National Economics – 2<sup>nd</sup> December 2014

The final draft EIA was completed in November 2014 and finished on 12<sup>th</sup> January 2015. The author of the EIA was Individual Enterprise Ezmakhunov R. R. for Top Geodezia. Consultation took place on the 5<sup>th</sup> August 2014 for the whole section 2214-2380. The EIA has not been disclosed.

The current draft ESIA has been prepared specifically for the EBRD in order to meet the EBRD Environmental and Social Policy requirements. Identified gaps have been presented as ESAP actions that are recommended for implementation in order to meet EU Standards. It is planned that the ESIA will be finalised and discussed at a further public consultation meeting (to include local communities who have not attended previously) at the end of March 2015. This second public hearing is will address all the sections of the road and has been organised to take place over three days.

### **Design and Implementation**

The road design is now finalised and is in the process of being reviewed by the authorities. Key stages in the future will be the issue of invitations to tender for road construction companies and also appointment of project management and project supervision roles.

Bidding documents for the Procurement of Works have been provided for inspection for a section of road being financed by another IFI. This template will be used for this project. It has clauses stating the company will observe the measures in the EMMP and EIA and other references to environmental aspects.

### **Permits and Licences**

The status of permits and licenses:

Operational and environmental permits have reportedly been obtained only for quarries and earthworks.

Permits of other temporary and permanent land use – construction pads, spoil dumps, contractor camps, batching plant etc. have not been obtained.

Permits required to cover air emissions, water use etc. have not been obtained.

### **2.3.3 Area of Influence**

The area of influence in respect to this project is considered to be the other sections of the 228 km “Kurty Buribaytal” or the “Centre - South” corridor linking Astana to Almaty. The Section for which the EBRD finance is sought is 81 km. The road sections are:

- Section 1: km 2152-2214 (62km)
- Section 2: km 2214-2295 (81km)
- Section 3: km 2295-2335 (40km)
- Section 4: km 2335-2380 (45km)

A review by EBRD of the EIA<sup>2</sup> for the 85 km of the WB Sections 3 and 4 identified a number of areas requiring further information / assessment, including:

- Provision of public hearings minutes, information disclosure and wider stakeholder engagement
- Project categorisation
- Land acquisition / resettlement

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<sup>2</sup> Draft Environmental Impact Assessment report of the section of “Kurty – Burybaital” of “Astana – Karaganda – Balkhash – Kapshagay – Almaty” Road, drafted by Kazakhstan Road Research Institute (KazDorNII) in association with Sapa SZ, January 2015



- 
- Labour and occupation health and safety
  - Institutional capacity for project implementation
  - Biodiversity impacts
  - Road safety measures

It was reported that no new ESIA has been prepared for the 62km of Section 1 and that it is now likely that this section will be constructed under the Republic budget and for which no ESIA is required other than the EIA which has already been carried out under the detailed design of the road section.

A project risk is that the full section of the road does not specifically meet the requirements of EBRD, as the three other road sections are potentially being financed by other IFIs and other standards have therefore been used, although it is assumed that ESDD has or will be undertaken for these road sections and that there should be a good level of alignment with EBRD's requirements. However, the review of the EIA above suggests that there are gaps, similar to some of those identified in this report.

## 2.4 Investment Plans

### 2.4.1 Investment Plans

The EBRD has been requested by the Committee for Roads (that is within the Ministry of Investment and Development, the government ministry that is seeking the finance) to provide the currently estimated USD 200 million for the reconstruction of a 81 km section of the 228 km "Kurty Buribaytal" or the "Centre - South" corridor linking Astana to Almaty.

### 2.4.2 EBRD Categorisation

The EBRD are considering providing finance as detailed above. Under the new EBRD Environmental and Social Policy<sup>3</sup>, this applies to projects that have been initiated after the 7<sup>th</sup> November 2014, projects are categorised as A, B, C or FI to determine the nature and level of environmental and social investigations, information disclosure and stakeholder engagement required. This will be commensurate with the nature, location, sensitivity and scale of the project, and the significance of its potential adverse future environmental and social impacts. Past and present environmental and social issues and risks associated with project-related existing facilities will be subject to environmental and social appraisal regardless of the categorisation.

Appendix 2 of the Environmental and Social Policy provides an indicative list of types of projects which would be categorised as Category A. This list applies to "greenfield" or major extension or transformation-conversion projects in the categories listed which are examples of projects that could result in potentially significant adverse future environmental and/or social impacts and therefore require an Environmental and Social Impact Assessment. The categorisation of each project will depend on the nature and significance of any actual or potential adverse future environmental or social impacts, as determined by the specifics of nature, location, sensitivity and scale of the project.

Contained within the example list of Category A projects that relate to this project are:

*6. Construction of motorways, express roads and lines for long-distance railway traffic; airports with a basic runway length of 2,100 metres or more; new roads of four or more lanes, or realignment and/or widening of existing roads to provide four or more lanes, where such new roads, or realigned and/or widened sections of road would be 10 km or more in a continuous length.*

The proposed investment is for the widening of an existing road to four lanes of a continuous length of 81 km. This meets the criteria above, as such this project is classed as a Category A project which at an early stage in the project would be in line with the policy where potentially significant adverse future would not have readily be identified or assessed, and which, therefore, would require a formalised and participatory Environmental and Social Impact Assessment process. However, following a review of the environmental and social impacts, it is now considered that impacts are not adverse and have been identified, assessed and can be addressed through mitigation measures, the requirements for a Category B project.

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<sup>3</sup> Environmental and Social Policy, European Bank for Reconstruction and Development, May 2014

As previously stated, Category A projects could result in potentially significant adverse future environmental and/or social impacts which cannot readily be identified or assessed and will require the client to carry out a comprehensive ESIA. The ESIA process will include a scoping stage to identify the potential future environmental and social impacts associated with the project. The ESIA will include an examination of technically and financially feasible alternatives to the source of such impacts, including the non-project alternative and document the rationale for selecting the particular course of action proposed. It will also identify potential improvement opportunities and recommend any measures needed to avoid, or where avoidance is not possible, minimise and mitigate adverse impacts. The ESIA may need to be carried out or verified by independent experts. The ESIA process will also include a public disclosure and consultation process as specified in PR 10.

From a review against these requirements, an ESIA<sup>4</sup> has been undertaken by an independent consultant, KazDorNII following an earlier national EIA. The national EIA process did not include a scoping stage. It does consider alternatives ("without project" and "with the project") concluding that the selected alignment of widening of the present carriageway to 4 lanes with a dividing strip, offers the best environmental approach to solving the problems with the present alignment and encouraging greater economic and social links between town and cities.

Within the ESIA, there is a comprehensive EMMP that provides mitigation measures during the pre-construction (design) phase, the construction phase and the operational phase.

For Category A projects, the ESIA process is required to include a public disclosure and consultation process. Specifically, this requires engagement during the scoping process at an early stage of the ESIA process. The agreed ESAP for a project (as an ESIA is required), should be disclosed in accordance with the SEP. As part of this project, a SEP has been developed to provide a framework for consultation activities. A NTS has also been developed to provide a summary of the project for disclosure. It is intended that when the ESIA is finalised it will also be disclosed at the end of March 2015 when a second public consultation meeting took place. As well as meeting the national law for the consultation process, the ESIA should be in the public domain throughout the life of the project, but it may be amended, from time to time, with additional information, or archived following project completion, as long as it is available on request in a timely manner. The first public consultation was held in August 2014 relating to the design and location of junctions and underpasses for cattle, the location of the construction facilities and sources of water supply. Additional public consultation is planned for end of March 2015 on the ESIA and EMMP with an invitation to local communities along the road section. Furthermore, more informal consultation and disclosure is planned during implementation. Further details are provided in the SEP.

A review of the project has been undertaken to determine the applicability of EBRD's PRs to the Project. Chapter 7, Conclusions and Recommendations summarises the findings of this audit against EBRD's PRs. All PRs are considered to be applicable with the exception of PR 7: Indigenous People and PR 9: Financial Intermediaries.

None of the activities that will be associated with the reconstruction of the road are those that are listed in the Exclusion List in the EBRD Environmental and Social Policy.

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<sup>4</sup> Draft Environmental and Social Impact Assessment (ESIA) report of "Kurty – Burybaital" Road Section, km 2214 – 2295, part of reconstruction of "Center-South" corridor linking Astana to Almaty, drafted by Kazakhstan Road Research Institute (KazDorNII) in association with Sapa SZ, 2<sup>nd</sup> March 2015

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## 3 Road Setting and Key Features

### 3.1 Setting

#### 3.1.1 General Information

The proposed EBRD funded road section is located in Zhambyl District of Almaty Oblast, between Kanshangel and Aksuyek villages.

The entire road section is aligned in south-eastern direction. The existing road is assigned Category III for the km 2214 to km 2227 section and Category II for km 2227 to km 2295 section with the road pavement width ranging from 6 to 7m.

The M-36 road will be widened to the south to four lanes. About 60% of the road will be realigned vertically to comply with the Category 1b highway requirements. As the road is designed to be elevated above the existing road up to 3m, 8 quarries are to be developed along the road for earth and partial sand-gravel mixture. The road will have an average and maximum allowed speed of 80 and 120km/h respectively.

The designed road alignment crosses three river beds which are dry in summer but can carry a significant amount of water and sediments in spring. The construction of 3 new bridges (64m, 40m and 80m long respectively) will be conducted within the water protection belts of these rivers next to the existing bridges. Additionally 5 more bridges, 32 pipe culverts and 37 box culverts are planned to be installed at the place of existing structures.

The 8 new off-ramps (five of them are two-sided - north-south) will be added to 5 existing off-ramps to ensure access from the field roads that are used by the local population.

A number of these structures were seen on the visit to the road and close observations were made of a number of culverts and bridges. See Appendix C, for a selection of photographs taken during the road visit.

#### 3.1.2 Physical Characteristics of the Location and Climate Conditions

The project corridor runs on flat terrain parallel to the Tien Shan mountain range over its entire length at a distance ranging from 10 to 30km. The area's geology is characterised by thick accumulations of sediments of glacial and river origins. Korgankum sand massive is 2-12km north-east of the road, sediments and relief are formed by wind. Soil around the alignment is poorly developed, protrudes to 20cm and is presented by slightly humid gray soils.

The surface water network drains to the north and eventually falls into Lake Balkash. The road alignment crosses three river beds: Tesik, Shengeldy and Kurmansay rivers, which become dry in summer, but can carry a significant amount of water and sediments during the spring. Groundwater is relatively abundant in the project area, ranging in depth from shallow aquifers in young sediments, to deep thermal waters. The general movement of groundwater is from the mountain range slopes in the south of the project area downwards to the north plains. Groundwater is mainly stored in the fractured rocks and it is not opened at 3.0-7.0m depth.

The proposed route alignment is located in the desert-steppe zone of poor pasture land, which is used for non-intensive cattle herding. Vegetation of the area consists mainly of wormwood, cypress and *Ceratocarpus arenarius* L. A significant part of the vegetation is represented by ephemers, e.g. bulbous bluegrass, brome, small sedge, poppies. There are 4 endangered (Red Book) endemic species *Tulipa regelii* (Liliaceae); *Atraphaxis Teretifolia* (M.Pop.); *Silene betpakdalensis* Bajt. (Caryophyllaceae); and *Niedzwedzka semiretschenskia* B.Fedtsch. The area is occupied by 14 rare species.

The project road passes through the territory of Zhusandaly Preserve which is inhabited by the following mammals: goitered gazelle, wolfs, jackals, foxes, corsac foxes, hares and nidifugous birds<sup>5</sup>: pheasants, chehar, black bellied sandgrouse, pallas's sandgrouse, houbara bustard, bustard, little bustard and gray crane. For the given road span, only tolai hare and black bellied sandgrouse are in immediate proximity to the road during the seasonal migration times in the spring and autumn months. (See Appendix A, Figures A5-A7 below).

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<sup>5</sup> Birds that leave the nests shortly after eggs hatching

RGKP PO "Okhotzooptom" informed that the gazelle Jeyran passes the road at km 2220-2235 and 2245-2260 and that the cattle underpasses may not be wide enough for Jeyran. They can only use passages under bridges with lower relief and vegetation. Other Jeyran road passing sections are km1990-2000 at Buribaytal railway station 58km northwest of the road and at Kanshengel village east of the road.

It is therefore not clear if there are a suitable number of crossing points for the Jeyran. However it has been reported that this has been taken into account in the design and there is no requirement for further assessment.

The Climate is continental and varies from moderate in the West, to arid in the East with cold winters at an absolute minimum air temperature of - 46°C in January and hot, dry summers at an absolute maximum of +47°C in July. Precipitation occurs during relatively short periods in spring and autumn ranging from 150 to 400mm per year. Snow cover starts in November and lasts on average 80-100 days reaching a depth of 21-38cm. The North East and North West winds normally prevail.

The road is relatively free of risks related to natural hazards. An irrigation dam on Zhyngyldy River 25km south of the road is 86ha. Considering the river bed topography, the dam breakage is unlikely to affect the road bridge and its embankments. However, the combination of breakage with the high water and surface water runoff may be a concern.

Surface water runoff in spring may flood the south edge of the road after a particularly large amount of snow melt on the ground that froze in spring. To combat this, orthogonal to the road 2m high dykes are to be constructed to direct this water into a designated culvert. In rare years three rivers that originate from Tien Shan Mountain Ridge may bring an exceptional volume of water in spring. However, the condition of the existing bridges and their embankments that have not been repaired since early 1970s show that the risk is not significant.

### 3.1.3 Social and Economic Features

The road is located in the west of Almaty oblast in the 19,300km<sup>2</sup> Zhambyl District with 61 settlements inhabited by some 136,800 people of more than 30 nationalities. The Project road section starts after Aksuek town and ends short of Kanshengel village. From observations made during the road visit, there are no populated settlements directly along the road section. There is only one farm 0.95km north of the road at the road end. Within the distance of vision of a few kilometres during the drive along the road, no more than approximately fifteen isolated properties were observed on both sides of the road. These isolated farms and other residential structures use dirt roads to connect to the main road. At the end of the section at 200km there is a large farm with three buildings that are just outside the EBRD section. There are no businesses, petrol stations or other formal or informal economic activities in the vicinity of the road. See Appendix C, for a selection of photographs taken during the road visit.

After the end of the section, open pit uranium mining took place at Aksuek (located in Zhambyl Oblast 6.5km north-west of the road end), the town was abandoned by 10,000 people and empty houses have been dismantled for reuse as building material. The population of 1,231 consists mainly of the elderly who worked at the mine and have remained. There are limited employment opportunities in the village and in the nearby area.

Kanshengel village consists of 11 farm houses. Over time its population has gradually fallen to 144 residents. Herds belonging to the farms use the road as a livestock crossing.

Small fields are irrigated at the aforementioned dam from where several long irrigation channels originate. One channel runs into Tesik River 10km south-west of the river bridge on the Project road. The channels are not used or maintained. In the immediate vicinity of the road there is no sign of agricultural production, and the vegetation remains unchanged.

The existing and planned off-ramps give access to the field roads that connect the Project road to Almaty-Bishkek highway (south) and Korgankum sand massive (north) used for storage of hay and the winter residence of the cattle herds. The southwards roads have several small winter farms along them. It is recommended that further information is provided to demonstrate that none of the isolated communities near to the road will be cut off by the new rehabilitated road. Several isolated properties were observed during the road visit, although none were directly along the road.

Five road accident memorials are located in the immediate vicinity of the road. They are not associated with the burials but mark the place of the accidents involving fatalities.

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The Archaeological Department has undertaken a study to identify all sites and objects that are of cultural significance. Even though the sites are far enough from the planned road and they would not be affected by the project directly, it is necessary to make sure that the access to them will not be blocked.

As previously stated, although there are no burials under the memorial stones, due to the spiritual culture of rural Kazakh people some sites may be sensitive when it comes to relocation or limitation of access. There are no processes under the Kazakh law to address this issue, and it was noted that it might be illegal to put the memorial sites along the road. It has been pointed out that some owners may live hundreds of kilometres away from the memorial.

During the road visit, it was noted that one memorial site was close to the road so that relocation might be necessary. It was pointed out that local authorities may have information about accidents/casualties in the region and the owners of memorial sites, so there could be consultation and/or information dissemination about fencing off or relocating sites. It is recommended that relocation is undertaken where required and there is access to and from the road for other memorials. These mitigation measures should be introduced to ensure that the memorials are preserved.

During the site visit approximately four wells were observed – some were used by herders – and with a number of dirt roads connecting to the main road. There were a few rest areas where truck drivers stopped to rest, though there was no infrastructure at these locations (e.g. no rubbish bins, no bathrooms or other facilities).

It was also observed that a number of herds – including cattle, horses and camels – crossed the road with their herder. The herders did not follow the intersections along the road, they simply crossed wherever convenient regardless of the traffic.

### 3.1.4 Archaeology

Archaeological assessment of the area along the road identified one tomb and five early Iron Age kurgan burial grounds of particular archeological historical and cultural interest. Karboz Tomb, 5m in diameter and 3.5m in height, is located 400m north from the road. Two twin and one single kurgan burials are located 90,150 and 300m north and south from the road. A 50m protection zone should be maintained for the given monuments. Fencing should be considered for them to avoid accidental damage by heavy machinery, though access should be provided for anyone who may wish to visit the sites. It is not considered that there will be a need to relocate these sites as they are not very near to the road.

So called 'chance finds' might occur along the road during construction. This includes any findings or cultural and archaeological significance that surfaces during construction works. In case anything is found in the ground that might be of cultural or archaeological significance, the Institute of Archaeology and other relevant institutions will need to be contacted to undertake an assessment of the findings, to build on the mitigation in the EMMP.

## 3.2 Land Ownership

The land along the road is mainly state owned, though private companies and individuals lease some land plots. The leasehold is generally for a 49 year period with a condition that the land must be returned for certain purposes under Kazakhstan legislation on land. Along Section 2, the EBRD section, there is a total number of nine affected landowners. The land is currently used as pasture land for all of the EBRD section, there was no sign of agricultural production or plantations during the site visit. The land plots are generally quite large, much larger than the farm would need to allow for adequate pasture areas for the herds.

All the owners were identified through the Land Relations Department according to the land registry. Based on the site visit, local experts confirmed that the owners are usually absent from the affected lands, and the hired herders can migrate freely within the pastures. The herders often venture outside the borders of their designated land plot due to the oversupply of grazing land in the area. The borders of land plots are not fenced or marked, as traditionally state owned plots could also be used as grazing areas without special permissions or official documentation. The herders are usually either owners of their livestock, or paid relatives which allows for family life. Observance of their rights as hired labour force is difficult to trace.

According to the interviews conducted with local experts, the district level government approaches the legal owner through official channels to let them know about the land acquisition and then the owners get in touch with their employees to let them know about the changes. It was confirmed that no farmers were present during the consultation, though an official invitation were sent to them. The land that will be acquired as a result of the

Project is a right of way of 30m along the existing road. It leaves enough pasture land to continue herding without any inconveniences.

# 4 Environmental, Health, Safety and Social Management Arrangements

## 4.1 Responsible Bodies

The Committee for Roads manages road construction projects. It is within the Ministry of Investment and Development of Kazakhstan, which is the implementing agency, with responsibilities for transport sector policy, and for planning, developing, and regulating transport in the road, railway, and aviation sectors. The Committee of Road Police are responsible for road safety and have approved the road safety measures that have been proposed. After project completion, the Ministry of Investment and Development will be in charge of the operation and maintenance of the project roads.

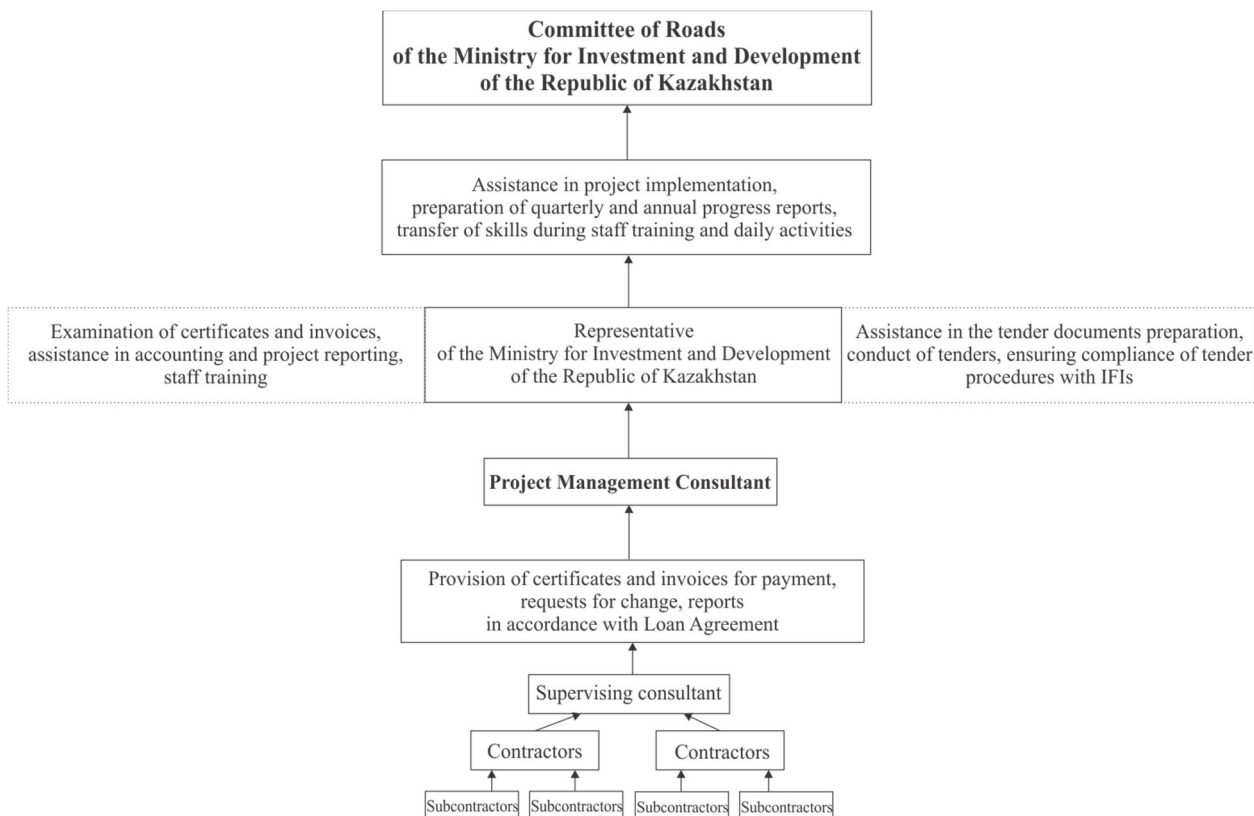
## 4.2 Project Management and Implementation

From meetings held, it is acknowledged that there is a need to establish institutional organisational capacity for this project. Roles and responsibilities are not yet clearly defined. ZazAutoZhol based in Almaty is a recently formed body that will be the PIU. This is the first regional department of the Committee for Roads. Although this arrangement has yet to be decided.

For day to day project management and meeting EHSS performance standards during construction will to be undertaken by an appointed Project Management Consultant (PMC) and an appointed Project Supervision Consultant (PSC). Specialist staff will be assigned to the PMC to undertake all environmental assessment related tasks and the PSC's team will have an environmental monitoring specialist and social impact monitoring specialist. Their role will be to assist in all aspects of environmental planning and implementation, internal monitoring and evaluation, and training of the PMC and relevant government staff on environmental assessment and EBRD's Environment and Social Policy. There is no assignment of these roles yet.

The planned management and reporting structure is shown in Figure 3 below.

**Figure 3: Project Management Structure**



## 4.3 EHSS Management

### 4.3.1 EHS Responsibilities

The PIU of the Committee for Roads are responsible for preparing the tender documents and selecting the contractors that would carry out the reconstruction of the road.

PSC will also be a contractor of the Committee for Roads. In addition an Independent Monitoring Agency (IMA) could be hired as well.

After completion of the road, the PMC in cooperation with the district/regional administrations will undertake routine and random monitoring.

### 4.3.2 EHS Policies and Management Systems

The Committee for Roads has no integrated EHS management system with proper policies, plans and procedures. It is recommended to incorporate at least some elements of ISO 14001 into the activities of the PIU, such as setting policies, plans and procedures, a regular review and update of all the above as required and these should be incorporated into contracts with contractors.

### 4.3.3 Stakeholder Dialogue

Although, there is no formal written plan to engage with Project affected stakeholders, according to national legislation on consultation and information disclosure relevant stakeholders were invited to a public hearing in August 2014 to comment on the draft EIA. The national legislation requires consultation with interested and affected stakeholders on the EIA and the next public hearing where the finalised EIA will be discussed is reported to have taken place at the end of March 2015.

The system within the regional, district and local authorities seems to be working well with clearly identified and designated roles and responsibilities in all relevant institutions. The process follows a bottom-up approach where local authorities have the responsibility to organise meetings and public hearings and to reach out to affected stakeholders in the area. In case they need information related to the land registry their officials approach the district or regional level authorities to request the necessary data.

A Stakeholder Engagement Plan (SEP) has been prepared by the WSP team to incorporate the principles and practices already in place with the EBRD requirements and provide for a systemic consultation process following the different stages of the Project.

It is documented that during construction the PMC will include in internal monitoring reports meetings held with rural communities and village leaders and other organisations on providing information on the project. Full details of future engagement are provided in the SEP.

### 4.3.4 Contractor Management

The tendering process is coordinated by the Committee for Roads. Up to two contractors will be appointed for the road construction, the aim being to allow smaller companies to bid for individual sections of the road, thus ensuring an inclusive process. The construction companies are considered to be the primary supply chain under the Environmental and Social Policy (2014) of the EBRD and thus measures to assess their compliance with the requirements in terms of labour and working conditions will be included in the ESAP.

At the Committee for Roads, it was stated that tender documents would be prepared soon. It was stated that as part of the evaluation process, criteria for past performance was not taken into account. It is recommended that as part of the selection process EHSS performance should be evaluated.

All mitigation measures in the ESIA that have been identified will be incorporated into tender documents and become part of the works contracts for the contractors. It is recommended that further mitigation that is provided in this report should also be integrated into tender documents. It is understood that the Committee for Roads of the Ministry of Industry and Development will use the previous ADB, WB, EBRD funded contracts as templates for this road under review. These conditions are therefore prepared in the form that can be easily inserted into the said contract. These have been reviewed and they already include clauses on non-discrimination and equality of opportunity, working conditions, employee training, the need for an H&S Plan, emergency prevention, preparedness and response, HIV-AIDS Prevention, a grievance mechanism for workers, and prohibition of child and forced labour. It was reported that the outsourced consultant will not have



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direct control over compliance in these matters, since the Kazakhstan labour legislation was adequate to ensure compliance in these matters.

Implementation of mitigation measures during the construction stage will be the responsibility of the contractor in accordance with the contract specifications and loan requirements. The PSC will supervise the monitoring of implementation of mitigation measures during the construction stage. There will be co-ordination for resolving complicated issues that arise in the field and to provide continuously updated information to submit reports to the PMC and the EBRD.

The key issues identified with the supply chain centre on labour and working conditions. In general the construction industry in Kazakhstan is non-compliant with many international conventions and international standards. This non-compliance is due to the lack of PPE for workers, lack of facilities in the vicinity of the working area (including toilets, medical and dining facilities), inadequate break and resting periods and extended work-hours. The team was assured that the standards are better for projects financed by Donors and IFIs, however, the Committee for Roads confirmed that there is no independent labour inspection requirement under the national legislation. It is important to undertake independent labour inspections and health and safety audits to ensure compliance not only with national legislation but also with international best practice. Reportedly the Ministry of Labour and Social Protection of Population and the Committee for Consumer Rights Protection control these issues effectively.

Workers' camps and workers residing on site might lead to conflicts with the settlements and local communities around the road. Although there are no houses or settlements next to the EBRD section of the road, there is Aksuek village right before the start of the EBRD section. Typical issues around workers' camps include harassment of females, anti-social behaviour escalated by substance abuse, spread of prostitution and STIs in the area and in some cases increased crime rates. It is unlikely that the project will result in any negative consequences, as the contractors would probably plan the local recruitment as the use of illegal labour force from neighboring countries in road projects is not practiced.

# 5 Environmental, Health, Safety and Social Analysis

## 5.1 Environmental, Health, Safety and Social Impacts

### 5.1.1 Approach

The information provided in this chapter is based on observations during the visit to the existing road and interviews with key stakeholders, not previously discussed. In addition further findings are presented in Chapter 6 of the gap analysis of the ESIA.

### 5.1.2 Environmental issues

#### **Waste generation and disposal**

It is not clear yet how materials will be safely stored. It was stated that the oil tank will not be on sealed ground and will not be double skinned or bunded to avoid the spread on land and groundwater pollution during depressurisation. It is recommended that containment measures are introduced for the storage of materials.

#### **Water Use and Waste Water**

Even though the water sources have yet to be identified, it was stated that water will be brought from the closest water abstraction, and not from the local streams.

It was stated that there will be no discharge to rivers and wastewater from the camp will be discharged to a pit. The road will be at a height of 3m or more, and therefore there will be no issues with surface water as it will run off. There is the potential for flooding the south edge of the road after a particularly large amount of snow melt on the ground that has been frozen in spring. The design has taken this into account with the construction of dykes to direct water into a designated culvert.

A number of recommendations are proposed to adequately address water use and disposal of waste water.

#### **Other Issues**

Other impacts relating to air quality and noise are not considered to be significant issues due to the lack of settlements along the route and the low traffic volumes. However a number of recommendations are provided on the basis that there is no baseline data (see Chapter 6).

It was stated that there will be a concrete batching /asphalt plant located on route. Insufficient details have been provided in relation to the location of this plant(s) with identification of impacts for the operation of this plant, although some mitigation is provided in EMMP.

There will be no issues with sand drift as the road is located some 2-12km from the Korgankum sand massive.

### 5.1.3 Health and Safety Assessment

The team was unable to examine any health and safety issues related to the construction, as the works have not started yet. Based on the observations and the visit to another road construction site, it is expected that health and safety standards will need to be strengthened to achieve compliance with EBRD requirements. Increased attention should be paid to the use of PPE, presence of adequate facilities (i.e. bathrooms, kitchens), duration for breaks/resting periods and working hours in compliance with national legislation and international best practice. It was also noted at this site, that construction vehicles did not have reversing alarms and flashing beacons, when reversing and that there were several workers around the site. This presents a safety risk. Health and safety measures will be the sole responsibility of the construction companies.

Community health and safety was not discussed extensively during the site visit, as road signs and information about disruption in traffic and fencing off of dangerous construction areas will be the responsibility of the construction companies. The visited road construction site had adequate signage, however, the equipment was not fenced – only left by the road – which might lead to avoidable injuries. It is assumed that construction companies will use adequate signage and will allow for safe road crossings for private vehicles, pedestrians – if any – and public transport vehicles during the construction period in line with national legislation.

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The safe crossing of herds during the construction period was not discussed during the site visit, however it is assumed that temporary crossing points will be designated and publicised for the construction phase.

Mitigation measures related to health and safety have been identified and included in the ESAP. The ESAP will inform the tender documents that need to be prepared for the construction companies and will constitute a legal requirement in the contracting.

#### 5.1.4 Social issues

The Project is unlikely to result in significant long-term adverse social or gender impacts. The site visit confirmed that the impacts on social issues can be identified and mitigated through the ESAP. The majority of the impacts will be related to the construction (i.e. noise, dust, increased construction traffic, influx of workers) and will not continue during the operation 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 section financed by EBRD is not passing through any settlements, all the villages around the road are outside of the geographical scope of work. It is likely, though, that certain business opportunities created by the workers' camp and the Project will attract residents of nearby settlements to provide food and other services to the workers.

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 of bigger cities faster. The new road will not result in increased number of public transport vehicles or more frequent services in the area; however, it will greatly improve transport safety.

#### Stakeholder Engagement

Although, there is no formalised stakeholder engagement plan for the Project, national legislation required consultations to finalise the EIA, which were undertaken in August 2014. Currently the local authorities have direct contact with affected stakeholders and they execute the consultation and information disclosure orders received from district and municipal level authorities. The second public hearing was organised on the 30<sup>th</sup> March 2015 where the finalised ESIA will be discussed with affected people and implementing organisations were introduced. Beyond the finalisation of the EIA there are no other stakeholder engagement activities planned by the Client or local authorities. It has been observed, though, that individuals take initiative and seek official channels to submit their feedback on the design or the Project. The team was shown an official letter addressed to the district level authorities by farmers requesting the increase in the number of cattle crossings. The Committee for Roads and the designers have investigated the options to fulfil the request and changed the design to include more cattle crossings in the final design.

A SEP has been prepared by the WSP for the Client to use for future stakeholder engagement activities, internal and external communication.

#### Gender

As the project is unlikely to cause significant social impacts, the gender impacts of the project are also minimal. The key issues identified are related to the workers' accommodation and its impacts on local communities and neighbouring settlements. It is recommended that a management plan is prepared and implemented for workers settlement in order to prevent the possible impact.

In Kazakhstan, the land is usually registered in the name of the husband, which is confirmed by the fact that women were not identified as affected landowners. It is therefore unlikely that they will benefit from the compensation packages provided for the landowners. There is no physical relocation foreseen and the 30 m right of way acquired for the new lanes does not have a significant impact on livelihoods and the availability of pasture land in the area.

There are limited business and employment opportunities in the area especially for women. It is recommended that women's employment opportunity on the Project and the related infrastructure is 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' camp should allow for separate facilities for men and women to avoid any unwanted contact or attention. Qualified women are likely to be available to fill positions such as medical professional or service and maintenance service providers in the area of the camp. The engagement of local women and men in employment is encouraged.

There are certain limitations to women's employment according to the Government Regulation No. 1220 dated 28<sup>th</sup> October 2011. Jobs restricted to women under this Government Regulation include mining, metalwork, factories and jobs deemed hazardous, however, women are permitted to work the same night hours as men. The legislation of the Republic of Kazakhstan guarantees the equal opportunities both for men and women in the employment process and wage rates.

There is a significant gender pay gap in the country that is further enforced by the Constitution Article 24 and the Labour Code Article 22.15 stating that there is no equal remuneration for men and women for the same job. The Law 223-IV dated 8<sup>th</sup> December 2009 on State Guarantees of Equal Rights and Opportunities for Men and Women Chapter 3, Clause 8 guarantees equal opportunities during the hiring process.

### **Disruption during Construction**

During construction the traffic will be organised such that the existing road can be utilised during the first stage and then when widening on the righthand side has been completed, traffic will flow on the new section during the second stage, while the lefthand side is constructed. A similar approach will be used for the construction of culvert pipes. For bridge construction, temporary road bypasses will be used.

There is insufficient information relating to community H&S e.g. access to roads, livestock crossing during the construction, alternative routes for dirt roads while intersections are constructed. Communities should not be cut off during construction and also when the road has been built. It was stated that most dirt roads will be connected to the road if used regularly and that consultation with farmers on this issue will take place.

Disruptions of traffic and limited crossing points during the construction phase will cause issues for the general traffic, public transport vehicles, local residents and herders. 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.

A community health and safety plan 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. Mitigation measures are identified in the ESAP to minimise the impacts.

### **Livestock and Livelihood**

The construction of the new road is unlikely to result in negative impacts on the livestock and livelihoods of farmers and landowners affected by land acquisition. There is no agricultural production taking place due to the climatic conditions. The EIA describes greenhouses and agricultural production, but the team did not see any signs of such activities during the field trip. The only agricultural activity that was observed during the site visit is herding and livestock rearing. The herds consist of cattle, horse and camels though there are reportedly herds of goat, sheep and poultry in the area and these herds often belong to the farmer who owns the land plot.

Impacts of construction, increased construction traffic and human presence in the area might impact adversely on certain aspects of livestock rearing – noise can scare animals thus they leave the herd, vehicles might cause injuries if adequate crossing points are not provided and alternative crossing points or grazing lands might be necessary depending on how the road works is organised. It is customary in Kazakhstan to use state land without asking for permission for grazing purposes, thus it can be expected that herders and farmers not residing in the immediate vicinity of the road can use free land for their herd or cross the road. There are no provisions agreed or discussed previously to compensate any herder – regardless of having formal titles – for lost livestock as a result of the Project. Mitigation measures are included in the ESAP covering both monetary and non-monetary compensation measures.

Cattle crossings are included in the design of the road in consultation with farmers and residents. Temporary crossings will be designated during the construction period to ensure that economic activities of local residents are not disturbed as a result of the construction.

### **Land Acquisition**

Land acquisition is currently planned according to national legislation. There is a national Resettlement Action Plan prepared, though it was not available for review at the time of the site visit. Based on the EIA and other

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documentation and the discussions with local experts, land acquisition will be compliant with national legislation and will not result in a significant adverse impact on the landowners and the residents in the area.

The team acquired the Resettlement Action Plan (RAP) for Section 1 where both physical and economic resettlement is foreseen as part of the Project. The RAP is compliant with national legislation and follows the World Bank safeguards, the standards that were used, for resettlement and land acquisition and was prepared by the same local consultant who developed the national EIA and land acquisition guidelines for Section 2 financed by the EBRD. This RAP details national legislation on resettlement and land acquisition, as well as, a gap analysis to identify gaps between national legislation and the World Bank safeguards. The main gaps include:

- Valuation: the Republic of Kazakhstan only accepts government evaluators to provide the value of land to be compensated for. As there is no real open market for land in Kazakhstan – most land is state owned or the first private owner – it is difficult to get accurate information on the value.
- Compensation for:
  - Vulnerable people based on low income – those eligible for State Targeted Assistance will be eligible for additional compensation under World Bank standards
  - Businesses: transactional costs should be included in the compensation package for businesses that are relocated under the World Bank (WB) safeguards
  - Significantly affected people: People losing 10% or more of their land will receive additional compensation – either in cash or in kind
  - Informal land users: According to Kazakh traditions, state owned land can be freely used by herders and farmers. Identification of informal land users and compensation for their lost income or livelihoods is required under WB standards and EBRD's PR 5. As there are no physical barriers to enter land plots and use them as pasture land or cross other state or privately owned land plots it is advised to assess informal land use even if it is seasonal or temporary. This is a requirement under EBRD's policy to assess informal land users and if deemed appropriate to provide compensation to not only formal but also informal residents, tenants and land users. It may be that there are no informal land users identified, however an assessment should be undertaken to confirm that there are no formal or informal land users.

It will be encouraged that principles applied for other sections of the road with respect to informal land users, residents, vulnerable people, significantly affected households and businesses are applied for Section 2 financed by the EBRD. As there is no physical relocation and there are limited business activities along Section 2, the only applicable principles include protection for vulnerable, significantly affected and informal users or residents. Land acquisition and related activities will be undertaken by the district council, the construction companies will play no role in land acquisition.

Informal users or residents were not observed during the site visit, though, due to the seasonal nature of herding and the lack of physical barriers to enter and go through land plots in the area it is encouraged to assess the need for extended consultation with herders who might be using the road crossing points. This is the only relevant gap identified as non-compliant with EBRD's PR 5 and thus mitigation measures are identified in the ESAP to address compensation and consultation issues for informal users or herders who may reside in the area temporarily. The compensation for the landowners are compliant both with national legislation and EBRD's PR 5.

The road from Astana to Almaty is divided into different sections financed by different IFIs with varying requirements and standards. It is crucial to coordinate efforts and apply the same principles to avoid 'salami slicing', i.e. applying different compensation measures and relocation assistance –where appropriate – for the different sections. This potential risk is minimised by the fact that Section 2 financed by the EBRD will not require physical or economic displacement and that all activities related to resettlement and land acquisition will be centrally coordinated by the Ministry of Agriculture and the Land Registry.

### **Vulnerable Groups**

A vulnerable group assessment have been undertaken to identify whether certain groups of communities affected by the Project prove to be especially sensitive to the impacts. As there are no settlements along the road, it is unlikely that any vulnerable groups will be directly impacted by the Project. The only people that might

be vulnerable are the herders who reside and work – both formally and informally – on nearby farms. Herders may be hired unofficially and may not have an alternative place of residence, and this is why they might be affected by the project.

Herders could potentially be identified as vulnerable in case they use the land informally. The majority of herders are formally/informally employed by land owners and farmers in the area, thus they will be covered by compensation according to Kazakh legislation, however, herders may cross the road or temporarily live there during the seasonal migration or when they transport the animals to the bigger farms to sell them. These informal herders are not recognized under Kazakh national legislation and thus mitigation measures have been identified to assess additional compensation measures or consultation activities to comply with EBRD's PR 5. Recognition and compensation of informal herders and land users (if there are any) is a requirement under the EBRD policy.

Depending on the number of workers' migrating to the area, females might be vulnerable to abuse and harassment. As detailed in the contractor management section, a strict code of conduct will apply to the camp area. The influx of migrant workers might escalate the vulnerability of women, though, based on local experts, it is unusual for migrant workers to target the construction industry for employment. They are more likely to work in farms or factories.

People living with disabilities or other health issues and the elderly might be more vulnerable to the increased noise and dust resulting from construction activities. There are no settlements in the immediate vicinity of the road around the EBRD section, but Aksuek village is only a few kilometres away so some of its residents might be vulnerable.

### **Contractor Management**

The project is at final design stage. Contractor tenders have not yet been prepared. Up to two contractors will be appointed for the road construction and there will also be the appointment of project management and project supervision roles in the future. In addition, suitably qualified personnel should be appointed to monitor the different contractors undertaking construction activities. It is recommended that independent audits are carried out to ensure that environmental, health and safety standards are complied with and that social issues such as terms and conditions of employment and standards of the camp that is planned for workers are compliant with EBRD requirements.

Construction 'pads' can serve as accommodation for workers, although it was reported that only one camp is planned. The numbers to be housed is unspecified (could be up to 500) and the location is unknown. It was stated that workers' camp will be compliant with IFC standards<sup>6</sup> and this has been recommended. There are 18 planned construction pads.

The construction industry is generally dominated by men, though certain positions could be filled by women – i.e. drivers, engineers etc. Villages nearby should be encouraged to contribute to the supply chain of the camp – e.g. providing food and other services. Although there are no villages along the road section, only isolated farms and properties. Therefore there may not be enough people nearby to support the camp. Similarly, it is not clear where the labour force will come from. It was stated that it will be local people which would have to come from the closest towns and villages.

It was reported that there will be a traffic management plans in place for some configurations and that these will be within the overall construction management plan for the whole section.

During the in-country programme, a visit was made to a road construction works (Almaty /Kapshagay road works) to get a view of the approach to contractor safety management in Kazakhstan. It was observed that the working conditions are generally not fully compliant with ILO/EBRD/IFC requirements relating to PPE use, fencing off sites, working patterns/working hours, payroll issues, no reversing sirens for vehicles. Tender documents for the procurement of construction companies should include EHSS performance standards that should be met. A summary of occupational health and safety regulations is provided in Table 4 below.

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<sup>6</sup> EBRD/IFC Guidance Note "Workers' accommodation: processes and standards", 2009

**Table 4: National Occupational Health and Safety Regulations**

RoK Regulating Document	Relevant Requirements
SNiP 1.03-05-2001 «Occupational Health and Safety during the construction» Act on “Occupational Health and Safety” №528-2 from 28.02.2004	Working place conditions shall comply with all sanitary epidemiological requirements. <ul style="list-style-type: none"> <li>• regularly inspect the process to eliminate or reduce risks;</li> <li>• Provide information, instruct and examine knowledge of OHAS;</li> <li>• Provide safe working conditions, special clothes, PPE, first aid and disinfection. Employees have the right to stop work if the above is not provided with no cost to himself;</li> <li>• When work has an aspect of hazard, compensate with additional pay;</li> <li>• Provide 0.5 litres of milk daily to the workers involved in hazardous operations;</li> <li>• Perform certification of working conditions on operational facilities if the operation mode changes or at least once every 5years if it remains the same;</li> <li>• Investigate accidents and analyse accidents, incapacitation records;</li> <li>• Obtain insurance for damage to workers health;</li> <li>• Conduct medical examinations once a year; and</li> <li>• Prevent escalation of accidental situation</li> </ul>

It is recommended that these national requirements should be fully met and also go beyond these requirements to meet EBRD requirements that require compliance with EU Occupational Health and Safety (OHS) standards<sup>7</sup> that are relevant to the project. The following should also be undertaken:

- Regular communications on relevant information or changes anticipated that might affect the workforce and the opportunity to provide comments as part of continuous improvement, including how to raise grievances;
- Provision of security to safeguard workers and property;
- Training of workers, and provision of appropriate incentives for them to use and comply with health and safety procedures and protective equipment;
- Have emergency prevention, preparedness and response arrangements in place.

At this stage of the Project, the construction companies – the primary supply chain – are unknown. During the site visit the team met the Committee for Roads and the officials responsible for tender activities. They confirmed that the tender documents contain the ESAP, so all actions required by the Donors and committed to by the Client are included in the contract for the construction companies. It was established that additional requirements can retrospectively be added to already awarded contracts to ensure compliance with national legislation and international standards.

The key issues related to the supply chain and contractor management identified during the site visit are the workers’ accommodation, health and safety, and compliance with the Labour Code and EBRD requirements in terms of working-hours and rest periods.

### Road Safety Considerations

The accident statistics for the Road Section 2011-2014 between the years 2011-2014 are reported to be: 2011: 21 accidents, 2012: 21 accidents, 2013: 15 accidents and 2014: 12 accidents.

Under PR4, there is a requirement to take into consideration relevant EU road and traffic safety management standards<sup>8</sup> and where appropriate to undertake road safety audit for each phase of the project and routinely monitor incident and accident reports to identify and resolve problems or negative safety trends. Where there are vehicles or fleets of vehicles (owned or leased), there should be appropriate training to workers on driver and vehicle safety. There should be regular maintenance of all project vehicles.

The road safety audit team has identified a number of likely road safety concerns with the new road. The most significant of these are:

<sup>7</sup> EU OHS standards mean substantive requirements in EU legislative requirements in the field of safety and health at work setting out minimum health and safety requirements for the protection of workers

<sup>8</sup> Consistent with the objectives of Directive 2008/96/EC of 19 November 2008 on Road Infrastructure Safety Management.

- Higher operating speeds, leading to an increased risk of fatigue related crashes – measures are proposed for speeds that must be managed and maintained at or below 100km/h including speed restriction signs, use plastic guide posts, use of tactile edge lines (or indented tactile ribbings) and speed enforcement by police.
- Cattle and livestock – even though underpasses will be provided, it is anticipated that some animals will still cross the road. Measures include animal warning signs and suitable breaks in the central barrier. Although this attracts drivers to do U-turns. To prevent this, a concrete kerb will be necessary through each gap.
- Intersection and U-turn layouts - It has been recommended that the side road intersections remain open to a 6m wide (minimum) concrete median (to shelter turning traffic from the side road) and with a sheltered left turn lane for traffic turning left from the highway.
- Cross sections – a number of concerns have been raised including inadequate median width which will require widening and also wider sealed/paved shoulders that are proposed. Sealed shoulders will also provide a small increase in safety for the small number of pedestrians (mainly herders) who may use the highway.
- Roadside hazard management – measures relating to clear zone, driveable side slopes, extension of culverts outside the clear zone for safety and type of barrier have been recommended.
- Matching back into two way highway – measures are proposed for safe management of traffic including pavement hatching and signs.
- Pedestrians – very few pedestrians were observed along the road and the traffic volumes are modest and will not cause pedestrians to walk out of their way to use a pedestrian facility. Zebra Crossings present a high risk to all road users and are not recommended for such high speed roads. It is recommended that a number of 2m wide gaps in the back-to-back barrier are created at agreed locations, with warning signs. Also for pedestrians or herders who walk along the road, it is recommended to seal the shoulder to a width of a least 1.5m to give them an all-weather path with an increased separation from motor vehicles.
- General - Police assistance should be sought to ensure consistent enforcement along this new road, especially during the road construction phase as well as in the first months after work is completed. It has also been recommended that a public awareness campaign be undertaken for local people who live in the villages closest to the new road to alert them about how to safely use this new road before it opens.

The team discussed lighting at bus stops. It was indicated that there would not be any lighting installed. There are no houses along the road, and the scheduled buses operate only during the daytime. The Almaty-Bishkek road connects to the road where public transport passengers can change for buses towards Astana. Zebra crossings will be located within 200m of the bus stops. The terrain is flat and here is good visibility and low traffic volumes.



## 6 Gap Analysis and Supplementary Information

### 6.1 Approach

A gap analysis has been conducted against the EU EIA requirements and best practice. The key findings are presented in this section of the report.

#### 6.1.1 Air Quality

There is no baseline air quality monitoring data provided in the ESIA. This information is required to calculate the percentage increase in pollutant concentrations due to the proposed scheme, and to verify the emissions data for the vehicles, which is used to predict the operational emissions. It is therefore recommended that baseline air quality monitoring for NO<sub>2</sub> should be undertaken at locations along the alignment for a minimum of 3 months (and preferable 6 months) prior to the start of construction. A continuous analyser and diffusion tubes would be required.

The ESIA identified a number of sensitive settlements at 43km, 220km, 307km and 349km from the road alignment. There is no map to shown where these settlements are in relation to the alignment, this should be provided. It also refers to properties adjacent to the alignment, but the number of properties and distance from the alignment is not specified. The site visit ascertained that there were no residential dwellings near the alignment, and this needs to be set out clearly in the ESIA. As a minimum, the ESIA should state the distance to the nearest dwelling along sections of the alignment.

Ecological habitats, such as Khusandaly preserved area, have not been identified as sensitive air quality receptors. A map of the boundary of Khusandaly preserved area in relation to the alignment should be included in the ESIA. Potential air quality impacts on the preserved area and any sensitive flora should be considered in the air quality assessment and cross referenced to the flora and fauna section. This information should be provided to demonstrate that all relevant receptors have been considered within the assessment.

As shown in Table 5 below, the Air Quality Standards in Kazakhstan are either equal to or more stringent than EU standards.

**Table 5: Air Quality Standards**

Pollutant	Kazakhstan Standards MCP a/ mg/m <sup>3</sup>		EU Standard			
	20 min	24hours	1 hour average	24 hour average	Annual Average	Maximum daily 8 hour mean
Nitrogen dioxide	0.085	0.04	0.2 mg/m <sup>3</sup> (may be exceeded 18 times per year)		0.04 mg/m <sup>3</sup>	
Particulate matter (PM <sub>10</sub> )	0.15	0.05		0.05 mg/m <sup>3</sup> (may be exceeded 35 times per year)	0.04 mg/m <sup>3</sup>	
Carbon monoxide	5.0	3.0				10 mg/m <sup>3</sup>
Lead	0.001	0.0003			0.0005 mg/m <sup>3</sup>	

The ESIA provides calculated air emissions for the construction stage (Section 4.2.2, Table 4.6 of the ESIA) and states that the predicted emissions will be within the Kazakhstan limit values. The predicted emissions during construction are provided in tons (with no duration specified) and the standards are provided in mg/m<sup>3</sup>, it would be better to use the same units before disclosing the document to the public.

The ESIA states that the operation air quality assessment is based on traffic data forecasts to 2028 provided in the Feasibility Study, however the data was not provided in the ESIA. The assessment only considers the do-something scenario, and does not assess the air quality emissions for the do-nothing scenario.

The ESIA provides calculated air quality emissions for operation, but it needs to state what the calculated air quality emissions are measured in – hourly mean, annual mean, daily mean etc. The assessment considers emissions at 20m from the road alignment. At this distance the MPC limit values are not exceeded, so the sensitive land uses beyond this distance are unlikely to be affected. The ESIA also needs to state the distance to the nearest residential property along the alignment, and whether the limit values would be exceeded at the property.

### 6.1.2 Noise and Vibration

The ESIA identified a number of sensitive settlements at 43km, 220km, 307km and 349km from the road alignment. It also refers to properties adjacent to the alignment, but the number of properties and distance from the alignment is not specified. The report does not identify any ecological habitats that may be sensitive to noise such as Zhusandaly. The noise effects on the habitat and any protected species it contains should also be considered and cross referenced to the flora and fauna section. This information is required to identify all the potential sensitive noise receptors.

The ESIA does not include any baseline noise surveys. It is recommended that a day-time, evening and night-time noise survey is undertaken along the alignment to establish the noise baseline. This information should then be used to identify any locations with existing elevated noise levels, and to consider the implications of any increases on these locations.

There is no prediction of construction noise level. The ESIA states that using 'engineering judgement' the noise levels are expected to be below the levels in the Kazakhstan regulations. This needs to be supported by appropriate construction noise assessment methodologies. This would be calculated based on the anticipated construction activities and machinery. The assessment needs to consider the impact on sensitive receptors located both near the alignment, construction compounds and haul routes. Construction noise mitigation is included in the EMMP, but further details are required. There is no assessment of construction vibration, if there will be any construction activities that are known to generate higher levels of vibration, such a piling or compactors, they should be identified together with appropriate mitigation.

The operational noise assessment states that noise levels will be below the 70dBA limit at 20m from the road without noise barriers and 10m with noise barriers. However, it is not possible to review these findings as the ESIA does not contain any information on the method used to predict the noise levels, or the traffic flow figures, and it does not present the actual noise levels that were predicted.

The noise standard in Kazakhstan Regulations is 70-80 dBA. The EU Environmental Noise Directive does not set binding noise limits, it leaves this to the discretion of the member states, however the IFC Environmental Noise Standards are widely applied to projects and provide an alternative international standard. The IFC Standards are set out in Table 6.

**Table 6: IFC Environmental Noise Standards**

IFC Guideline Values (Leq)		
Land Use Type (Receptor)	Daytime (07.00-22.00)	Night Time (22.00-07.00)
Residential Areas	55	45
Commercial/ Industrial Areas	70	70

The IFC noise limits for commercial areas are comparable to the Kazakhstan noise limits, but the IFC noise limits for residential areas is lower. The actual predicted noise levels at 20m from the road were not included in the ESIA, so it was not possible to consider whether this lower standard would be exceeded.

It is recommended that the ESIA identifies the residential properties closest to the road alignment and calculates the predicted operational noise levels at these locations.

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### 6.1.3 Hydrological Impacts

#### Surface Water

There is some inconsistency regarding the rivers that are either crossed by the road alignment or are located in the surrounding area. Section 2-3 of the ESIA states that project crosses 3 seasonal rivers: Tasik, Shengeldy, and Kurmansay. Section 4.1.7 of the ESIA states that the most significant waterway is the Ili River, and the nearest permanent watercourse to the road is Kurty River. The presentation refers to bridges at Tasik River (at 2239+290), Kuyrshak Sholak River (2248+383) and Shengeldy River (2251+623), plus a further five smaller bridges. There is no map to show the location of these rivers in relation to the alignment, therefore it is recommended that a map of the rivers and the road alignment is provided in the ESIA, with the rivers clearly labelled.

The ESIA states that project crosses 3 seasonal rivers: Tasik, Shengeldy, and Kurmansay. These are dry in summer, but carry significant amounts of water and sediment in spring. The power point presentation states that the road will have 8 bridges, it is unclear whether the 5 smaller bridges are also crossing watercourses.

It is unclear whether the new bridges are being built adjacent to the existing bridges, and then the older bridges will be demolished, or whether the existing bridges will be demolished and then the new bridges constructed. The presentation appears to show the road being routed via the river bed during the bridge constructions. This may have construction programme implications, as presumably it can only be undertaken during a dry period, and the bridge must be completed before the rainy period to avoid the risk of the road being cut off.

Permission from the water authority is required for all works within the protection zones of rivers. The zone is 100m for small rivers and 500m for large rivers. It is unclear whether these permits have been obtained for the rivers affected by the project.

During the operation of the road potentially contaminated surface water runoff, will be treated in settlement ponds where necessary. The ESIA also refers to the use of wells where filtration occurs. It is likely that this is a reference to interceptors. Further clarity on the mitigation of surface water runoff is required, including the location of settlement ponds and interceptors, to demonstrate that the surface water will be treated before entering rivers.

The road maintenance regime will involve the use of less toxic de-icing materials.

#### Groundwater

The impact to groundwater during construction is expected to be low, due to the planned implementation of best practice measures during construction. The road will be on an embankment, with adjacent ditches that will be up to 3m below ground level. The greatest potential for impacts on groundwater is during the bridge construction, the ESIA states that impacts are likely to be minimal, but this statement needs further justification.

#### Water Supply

The water requirements during construction have been calculated. The following water sources have been identified for both drinking water and construction activities during the construction phase.

- Construction activities: Kurty River (this is a permanent river), well in Kanshengel village, and a ditch at 2325 +750.
- Portable water: 2 wells, one on the Kanshengel – Topar Road and a second adjacent to the alignment at 2335+750 (this is the same location as the third construction activity water source).

The ESIA indicates that these water sources are currently used for local needs, as it includes the measure to ensure minimal disruption to irrigation water and maintain dialogue with farmers. Further measures are required to demonstrate how access to these supplies will be managed during construction. The contractor will be responsible for getting permits to use surface water and groundwater resources. Groundwater recharge rates have not been considered and this should be assessed to ensure the project will not deplete supplies in this arid region.

The water requirements during the operation and maintenance of the road have not been calculated.

## **Wastewater**

Permits are required to discharge construction wastewaters to rivers, and the pollutant concentrations must be below set limits. It is unclear whether any of the proposed discharges to surface water would be affected by the seasonality of the rainfall and temporary nature of some rivers.

The ESIA states that construction activity wastewater will be subject to settlement and filtration, and wastewater from construction camps will be treated on site before discharge to surface waters. Septic sludge from toilets will be sent to offsite treatment plants.

The ESIA states that during construction, the domestic wastewater will be disposed to a concrete septic pit 1.5m x 3m, and then transported to the nearest WWTP in the outskirts of Almaty

It is not clear how the wastewater from the rest areas will be disposed of during the operation of the road, this should be specified.

### **6.1.4 Other Impacts**

#### **Geology and Land**

There is a large risk of soil erosion during construction, and detailed measures are proposed to reduce the risk. This will require close monitoring during construction to ensure soils are protected.

Measures to avoid soil contamination during construction are set out in the EMMP.

The ESIA does not refer to any identification or testing of potentially contaminated soils along the alignment. This should be undertaken to avoid the risk of contaminants being mobilised and contaminating further areas, groundwater or surface water during construction.

#### **Flora and Fauna**

The whole of the alignment lies within Khusandaly preserved area. A map of the boundary of this preserved area and the road alignment should be included in the ESIA.

There are protected species within the preserved area, including antelope. The road could potentially sever the habitat of this species, particularly as the road is on a raised embankment. Twenty cattle passes are proposed at intervals along the alignment, but it is not clear whether antelope could use these underpasses. As mentioned previously, the authorities have indicated that the cattle underpasses will not be suitable for crossing of antelope.

The ESIA proposes a tree replacement ratio of 1:1 or compensation for deforestation, which should be carried out according to the requirements of Forest Code of the Republic of Kazakhstan.

#### **Cultural Resources**

There are no monuments within 200m of the alignment. A Tomb and five burial grounds are located outside the alignment. The Tomb is being subject to a complete archaeological excavation, with recording and items of significance will be placed in a museum. The Institute of Archaeology is being consulted to determine whether they would prefer to secure the closure of the five burial grounds or open them to the public.

There are procedures in place for stopping work in the event of finding previously undiscovered cultural heritage assets during construction.

However as previously discussed there are memorials of which one was observed to be adjacent to the road. Appropriate measures will need to be introduced for such sites.

A summary of the gap analysis finding is presented in Table 7 below.

**Table 7: Environmental and Social Impacts and Mitigation Identified in ESIA**

Environmental Resource	Impacts identified in the EIA	Mitigation measures identified in the EIA	Recommendation's
<b>Construction Period</b>			
Climate and Air Quality	<p>There is potential for air quality impacts on nearby sensitive receptors, particularly farms</p> <p>The location and number of people affected has not been identified. There are some settlements identified in the report (43km, 220km, 307km and 349km). The ESIA also refers to residential properties adjacent to the alignment, but the number of properties and the distance they are located from the alignment is not specified.</p> <p>Predicted air emissions are provided, but the methodology for calculating the prediction is not.</p>	<p>The Contractor will be responsible for monthly monitoring of air quality against Kazakh standards during construction (including once before construction).</p> <p>No depots or worksites will be located within 200m of residential properties.</p>	<p>Baseline information on residential dwellings near the alignment should be obtained.</p> <p>Baseline air quality monitoring for NO<sub>2</sub> should be undertaken at locations along the alignment for a minimum of 3 months (and preferable 6 months) prior to the start of construction.</p> <p>The air quality monitoring technique and equipment for the construction monitoring should be specified.</p> <p>Visual dust monitoring should be undertaken daily during construction, and dust dampening measures taken if required.</p> <p>A complaints hotline should be established for the duration of the works and the number should be displayed at appropriate locations near the scheme.</p>
Noise and Vibration	<p>There is potential for construction noise and vibration impacts on nearby sensitive receptors, such as residential properties and Zhusandaly.</p> <p>There is also potential for noise and vibration impacts on construction workers.</p>	<p>Zones with noise levels above 80 dBA must be marked with safety signs.</p> <p>Construction should not take place at night.</p> <p>The engines of construction road vehicles should be insulated to reduce noise emissions.</p>	<p>Noise sensitive receptors should be identified in more detail.</p> <p>The noise and vibration associated with construction activities should be calculated.</p> <p>Hearing protection should be provided to construction works exposed to 85 dBA and above.</p> <p>No workers should be exposed to noise levels over 87dBA.</p>
Water Supply	<p>The ESIA includes a calculation of the water required for the project.</p>	<p>Suitable sources of water are identified.</p>	<p>The EMMP needs to include measures to ensure the local residents that use the water sources, are not adversely affected by the use of this water.</p> <p>Groundwater recharge rates should be assessed.</p>
Surface Water	<p>Accidental spillage of materials.</p>	<p>Construction Best Practice for the storage of</p>	

Environmental Resource	Impacts identified in the EIA	Mitigation measures identified in the EIA	Recommendation's
		materials and clear-up of any accidental spillages.	
Groundwater	Soil excavations near the bridges impact on groundwater.	None specified.	The potential for the soil works to impact on groundwater near the bridges needs to be assessed further.
Wastewater Management	Discharge of polluted and sediment laden wastewater from construction activities and domestic use.	Pre-treatment of construction water using settlement tanks and filters. On-site treatment of domestic wastewater. Permits are required before discharging to surface water.	The EMMP should specify the method used to treat domestic water. The EMMP should specify the need for permits.
Geology and Land	The soil is thin and dust storms and soil erosion can occur in summer. A significant volume of topsoil will need to be removed for the alignment and diversion routes. Care will be required for the preservation reinstatement of top soil. Need to use licenced borrow pits, due diligence of pits is recommended once they are selected. An assessment of the impacts of the construction traffic from the borrow pit will also be required.	Mitigation measures are specified in the EMMP.	Monitoring will be required during construction to ensure the mitigation measures are implemented.
Ecosystems and Flora & Fauna	Noise, air quality, habitat severance, and disturbance impacts on Zhusandaly preserved area.	None specified.	A map of the boundary of this preserved area and the road alignment should be included in the ESIA. The ESIA identified protected fauna within the preserved area, but needs to give further consideration to several of the habitats, particularly antelope and other mammals. An ecologist should undertake pre-construction surveys to check for the presence of protected species. Any particularly sensitive habitats should

Environmental Resource	Impacts identified in the EIA	Mitigation measures identified in the EIA	Recommendation's
			be identified and fenced off prior to the commencement of construction. Vegetation clearance should not be undertaken during the bird breeding season.
Geohazards / Seismic	Not considered in ESIA	None specified.	The potential for the road construction and operation to be affected by geohazards should be considered in the ESIA. If none are anticipated this should be confirmed. The ESIA states that the seismic activity is 9 points but the scale is not specified. The potential for seismic activity to affect the road, particularly the bridges, and any design considerations should be specified.
Waste Management	Inert materials will be re-used within the project. Hazardous material will be disposed of via existing municipal waste management facilities. Timber from felled trees will be stored outside the construction zone and sold to the public as firewood.	None specified.	
Cultural Resources	Impacts on the setting of known cultural heritage resources, including 1 tomb and burial mounds. Potential destruction of previously undiscovered assets during groundworks.	An archaeological investigation of the tomb is being undertaken. A perimeter fence will be erected 50m from the edge of the burial mounds during construction. A process for ceasing construction works in the event of an archaeological find has been established.	A map to show the location of the tomb and burial mounds and the alignment should be included in the ESIA. The assessment should consider whether there are areas with a higher potential for undiscovered archaeology to be present, where an archaeological watching brief should be used. The EMMP must contain measures to ensure the memorials to traffic accident victims adjacent to the road are sensitively relocated in consultation with those who erected them.
Visual Landscape	Not considered in ESIA	None specified.	The road will introduce a raised structure in a

Environmental Resource	Impacts identified in the EIA	Mitigation measures identified in the EIA	Recommendation's
			relatively flat landscape, therefore the visual impact of this should be assessed.
<b>Operational Period</b>			
Climate and Air Quality	The air quality impacts were within the limit values at 20m from the road alignment. It is unclear whether they would be exceeded within this distance, and whether there would be any properties affected by this.	No mitigation proposed.	Baseline air quality monitoring for NO <sub>2</sub> should be undertaken at locations along the alignment for a minimum of 3 months (and preferable 6 months) prior to the start of construction. The air emissions for the do-nothing scenario should also be assessed, and the percentage increase in emission calculated.
Noise and Vibration	There is potential for construction noise and vibration impacts on nearby sensitive receptors, particularly residential properties.	Noise barriers and landscaping will be used to reduce noise, where required.	The location and type of noise mitigation should be identified and included in the design. This should be based on robust prediction of noise levels.
Water Supply	The water requirements during the operation and maintenance of the road have not been calculated.	None specified.	Indicative water requirements and potential water sources should be provided in the ESIA.
Surface Water	Intensive runoff during heavy rainfall, and mobilisation of deposited contaminants.	Potentially contaminated surface water runoff, will be treated in settlement ponds and wells where filtration occurs (presumably these are interceptors?).	The location of these ponds and interceptors should be specified in the ESIA.
Groundwater	Polluted run-off from the road.	Use of drainage channels, culverts, and treatment in settlement ponds, before release to surface waters.	
Wastewater Management	None	None specified.	The ESIA should state how the wastewater from the rest areas will be managed.
Geology and Land	Following the reinstatement of all bare areas of ground during construction no impacts are anticipated.	None specified.	
Ecosystems and Flora & Fauna	Noise, air quality, habitat severance, and disturbance	Cattle underpasses are included in the design, but it is unclear whether these would be suitable for	The ESIA and road design needs to include measures to prevent the severance of habitats



Environmental Resource	Impacts identified in the EIA	Mitigation measures identified in the EIA	Recommendation's
	impacts on Zhusandaly preserved area.	antelope and other fauna.	used by antelope and other mammals.
Geohazards/ Seismic	Not considered in ESIA.		
Waste Management	Generation of gravel and salt from winter road maintenance, sludge from the settling ponds for stormwater, asphalt, gravel and concrete.	Disposal to existing municipal waste management facilities, landfills for mineral materials or recycling facilities.	The ESIA should recognise that sludge from settling ponds can have elevated concentrations of heavy metals from polluted road runoff.
Cultural Resources	Impacts on the setting of 5 burial mounds.	Institute of Archaeology is being consulted to determine whether they would prefer to secure the closure of the five burial grounds or open them to the public.	
Visual landscape	Not considered in ESIA	None specified.	The road will introduce a raised structure in a relatively flat landscape, therefore the visual impact of this should be assessed. The tree felling and replacement, and the stockpiling and reinstatement of bare ground should be included in the assessment.

## 6.2 Assessment against specific EIA Requirements

### 6.2.1 Key EIA Requirements

A summary of the compliance status against the EU EIA Directive Annex III is presented in Table 8 below.

**Table 8: Compliance with the EU EIA Directive**

	Requirement of EU EIA Directive Annex III	Compliance Assessment
1	Description of the project.	A description of the project is provided in the existing ESIA. The mapping provided is not sufficiently detailed.
	Description of the physical characteristics of the whole project and the land-use requirements during the construction and operational phases,	The project description covers the: <ul style="list-style-type: none"> <li>• Basic concept</li> <li>• Technical concept</li> <li>• Construction approach but not technology.</li> <li>• Limited information on the operating regime</li> </ul>
	Description of the main characteristics of the production processes, for instance, nature and quantity of the materials used,	The ESIA does not include a description of the materials used, estimated quantities and destination.
	An estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed project.	It provides some estimates, by type and quantity, of expected residues and emissions (water, air, noise, vibration etc.) resulting from the operation of the proposed project. However, others such as the actual predicted noise levels are missing.
2	Where appropriate, an outline of the main alternatives studied by the developer and an indication of the main reasons for his choice, taking into account the environmental effects.	Alternatives have not been considered as widening the existing road was considered to have fewer impacts than alternative alignments.
3	A description of the aspects of the environment likely to be significantly affected by the proposed project, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.	<p>Population: The ESIA identifies some local settlements and refers to properties near to the alignment, but further details are required. There is limited information on facilities and infrastructure and the economy.</p> <p>Fauna and Flora: The ESIA provides insufficient information on terrestrial and aquatic ecosystems and protected species.</p> <p>Soil: The ESIA describes the existing geology, but lacks information on seismology and geohazards.</p> <p>Water: The EIA provides some limited information on the existing hydrology. Pollution sources and water protection are described.</p> <p>Air and Climatic factors: The ESIA describes the existing meteorology and climate, but does not provide any air quality monitoring data.</p> <p>Material assets including architectural and archaeological heritage and landscape: The ESIA describes protected natural and historical landmarks.</p> <p>Inter-relationship between above factors: is considered in places.</p>
4	A description (1) of the likely significant effects of the proposed project on the environment resulting from: the existence of the project, the use of natural resources, the emission of pollutants, the creation of nuisances and the elimination of waste;	<p>The ESIA sets out an assessment of the likely significant effects during construction and operation of the proposed road.</p> <p>Population: Impacts of traffic, especially during construction and operational stages are not fully identified.</p> <p>Fauna: Impacts relating to terrestrial fauna are not fully identified</p> <p>Flora: Impacts on terrestrial flora and the location of protected areas are not fully identified.</p>

	<p>(1) This description should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the project.</p>	<p>Soil: The ESIA states that it will only obtain material from existing borrow pits with ESIA's and permits.</p> <p>Water: Impacts regarding surface and groundwater quantity (including supply of drinking water) and quality during construction and operation are discussed in the existing ESIA.</p> <p>Air: Potential sources of emissions and dust problems during construction are identified.</p> <p>Climatic factors: Greenhouse gas emission and issues of impacts on the microclimate are not identified</p> <p>Cultural heritage assets: archaeological heritage assets are identified.</p> <p>Landscape: Landscape impacts are not considered.</p> <p>Positive effects are also listed, such as improved road safety, journey times and economic benefits.</p> <p>The existing ESIA does not identify whether an impact is direct or indirect; short, medium or long term; or permanent or temporary.</p> <p>Cumulative effects over the environment components, including human settlements are not addressed and quantified within ESIA.</p>
	<p>The description by the developer of the forecasting methods used to assess the effects on the environment.</p>	<p>The impact assessment methodology is not transparent, and is not set out in the ESIA report.</p>
5	<p>A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.</p>	<p>The ESIA sets out the proposed mitigation and offsetting measures during construction and operation.</p> <p>Population: There is a no description of the proposed location of access roads and site compounds. There is no proposed traffic management plan. Further mitigation is required for impacts on the local population.</p> <p>Fauna and Flora: Further mitigation measures to protected species are required.</p> <p>Soil: seismic activity and geohazards have not been considered.</p> <p>Water: Further measures to protect quality of groundwater and surface water are required.</p> <p>Air: Further measures may not be required, once the assessment demonstrates the predicted impacts more robustly.</p> <p>Climatic factors: Greenhouse gas emission and issues of impacts on the microclimate are not considered.</p> <p>Cultural heritage: Measures to protect cultural heritage assets adequately addressed.</p> <p>Landscape: Not assessed, but measures to reinstate bare ground and replant trees are included.</p>
6	<p>A non-technical summary of the information provided under the above headings.</p>	<p>There is no Non-Technical Summary.</p>
7	<p>An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the developer in compiling the required information.</p>	<p>Not provided.</p>

## 6.2.2 Social Requirements

From the Directive 2011/92/EU of the EP and the Council of 13<sup>th</sup> December 2011 on the assessment of the effect of certain public and private projects on the environment with regard to social issues:

The directive emphasises the need for effective public participation in decision-making, as well as the participation of associations, organisations especially non-governmental organisations. The directive highlights the public participation ensures accountability and transparency of the decision-making process and raises public awareness of environmental issues. Disclosure of impact assessment documents for public comments is also a requirement under the directive emphasising that the direct and indirect effects on the population, human beings and human health should also be included in the documents.

The information to the public could be communicated by public notices or by other appropriate means such as electronic media, posters, brochures or phone calls early in the assessment process. Reasonable time-frames should be provided for the public to prepare and participate in the consultation activities ensuring that information is made available in an appropriate manner. The results of consultations should be recorded and taken into account during the project.

The public has the right to seek other formal channels to request a review procedure such as cases before a court of law or another independent and impartial body established by law to challenge the legality of decisions, acts and plans.

The Directive was amended in 2014<sup>9</sup> to include more emphasis on the protection and promotion of cultural heritage and strengthen public access to information. The amendments allows for information to be gathered and incorporated in the design even when it is not coming through a formal stakeholder engagement channel.

The national EIA requirements also provide for early engagement of relevant and interested stakeholders to participate in the decision making and share their opinions and feedback on the Project.

The EIA does not provide for an assessment of impacts on human health, however, covers impacts on population and cultural heritage.

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<sup>9</sup> Directive 2014/52/EU of the EP and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment

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# 7 Conclusions and Recommendations

## 7.1 Overall Conclusions

The road project is considered to provide benefits that include a vastly improved road network, with the EBRD potentially funded section part of the overall road connection between Almaty, the largest city and economic and cultural centre with Astana, the capital. There will be road safety measures that are part of the design (and others that have been identified from the road safety audit) that should greatly improve road safety. The road will serve local and national transport needs as well as the agricultural sector, which is a key sector in Kazakhstan, that will be a major beneficiary. Labour movement will also be enhanced with communities near to the road such as Kanshegel, Ashysu and Aydarly benefitting from easier transport links. The road will also be part of a route between China and western Europe via western China, through Kazakhstan to Russia. This will be economically beneficial from a trade and tourism perspective. There will be the international transportation of goods produced in countries that include Tajikistan, the Kyrgyz Republic and Uzbekistan. It is thought that the project will also assist the government to strengthen the capacity of agencies responsible for managing the national road network, and to prepare and implement a road safety and road service improvement action plan that will provide system-wide benefits.

From the gap analysis review of the ESIA, the review of additional documentation, the site visit to inspect the current road and the discussions held with various stakeholders it is concluded that this Category A project as defined in EBRD's Environmental and Social Policy largely meets the PRs and EU standards, although the new draft ESIA needs further work to fully meet the standards. In addition, there are project areas that are not structured and fully compliant with PR1, PR2, PR4, PR5 and PR10. Within the ESIA, there is a reasonably comprehensive EMMP with mitigation measures and the ESAP that has been developed from the gaps that have been identified to provide additional mitigation measures and studies that are recommended to be implemented with the EMMP to ensure that the project is fully aligned with the standards. The assessment has been done at a relatively early stage in the lifecycle of this road construction project such that the ESIA can be revised and finalised and the ESAP implemented.

An area that needs further information and appropriate mitigation, as detailed in this report are in relation to social issues. However, it is concluded that the Project is unlikely to cause any significant, long-term or adverse social impacts. Key social impacts of the projects include:

- Influx of workers residing in labour accommodation on site
- Management of the supply chain
- Livestock crossing during construction
- Land acquisition – 30 m right of way acquired from nine landowners along Section 2
- Preservation of cultural heritage and memorial sites along the road
- Community health and safety during construction

Legislation governing resettlement and land acquisition in Kazakhstan does not allow for compensation of informal land users and residents or people who will be indirectly impacted by the Project. It is important to identify people without legal title and provide adequate compensation for any lost livelihoods or housing.

The construction industry in Kazakhstan often fails to comply with labour, health and safety regulations in terms of PPE, work-hours and rest periods. The labour accommodation will be built to provide a residence for workers coming to work on the road. A code of conduct will be developed to minimise conflict with local communities, harassment and anti-social behaviour.

The national legislation does not provide for independent labour inspections, health and safety audits and independent monitoring of land acquisitions. In order to follow international best practice these independent audits should be undertaken on a regular basis, at least annually to monitor Project performance. It is understood that the Committee for Protection of Consumer Rights and Ministry of Labour and Social Protection of Population conduct regular inspections and control through request of reports.

For full details of all the areas of improvement and actions proposed to ensure compliance that have been identified in the audit, refer to the Environment and Social Action Plan (ESAP) in Appendix D. These should now be considered as part of the road investment plans.

## 7.2 Summary against EBRD Performance Requirements

### 7.2.1 Introduction

In respect of specific EBRD Performance Requirements (PRs), the environmental and social appraisal has been conducted against these requirements as presented in the previous chapters. A high level summary of the project against the performance requirements is provided in Table 11 overleaf in a compliance summary table in accordance with EBRD guidance.

The compliance summary provides a systematic review of project compliance with the EBRD Environmental and Social Policy, as defined through the applicable Performance Requirements (PRs). The scope of compliance is for all PRs applicable to non-FI projects, such as this project. Following, a review of the PRs all are applicable with the exception of PR 7: Indigenous people and PR 9 Financial Intermediaries.

The details in the compliance table will provide a baseline against which to judge future performance of the project through the annual environmental and social reporting process that is undertaken by EBRD. The compliance table as provided in the ToRs provides between 2 and 10 indicators for each of the applicable PRs: 1 - 10.

### 7.2.2 EBRD Compliance Summary Guidance

For all PRs (Indicators with whole number references) a summary of overall compliance with the PR has been provided. Where there are derogations from a PR, a justification has been provided and supporting documents referenced as required.

For each indicator within a PR, 3 steps have been completed as below in accordance EBRD guidance:

1. *Decide whether the indicator is applicable.* For Category A and B projects the starting point is that all indicators are applicable unless the project has no significant aspects relevant to the indicator (i.e. no risks), in which case the indicator should be scored "NA" and a brief summary of the reason given. For Category C projects the starting point is all indicators are NA unless the project has a significant aspect relevant to the indicator (i.e. there is a material risk).
2. *Decide whether an opinion is possible.* If not (for example if the indicator will apply, but it is too early in the project) score as "NOP" and provide a brief summary of why. Where lack of opinion represents a material omission to the review refer to where this is addressed in the report and summarise any recommendations.
3. *Score the indicator as follows and provide brief justification.*

**Table 9: Indicator Scoring**

<b>EC</b>	<b>Exceeding Compliance</b> The project has gone beyond the expectations of EBRD's PR requirements. EBRD should be able to use projects rated EC as a role model for positive Environmental and Social effects.
<b>FC</b>	<b>Fully Compliant:</b> The project is fully in compliance with EBRD's requirements, and EU and local environmental, health and safety policies and guidelines.
<b>PC</b>	<b>Partial Compliance:</b> The project is not in full compliance with EBRD's requirements, but has systems, processes or mitigation measure in place which are working towards addressing the deficiencies.
<b>MN</b>	<b>Material Non-compliance:</b> The project is not in material compliance with EBRD's requirements, and the systems, processes and mitigation measures in place are not working towards addressing the deficiencies.

1. *Comments/Issues: Provide a brief commentary on the relevance of this requirement for the project and an explanation of the chosen score.*
2. *Actions Required: Where applicable, briefly describe any actions required by the client to achieve full compliance with each requirement. Where a relevant action is included in the ESAP for this project, please provide a reference to the ESAP.*
3. *PR Summary: Provide an overall summary against the PR, using the above compliance definitions with supporting commentary. In some cases it may be sufficient to address a PR at summary level only, depending on Stage 1 above.*

Note: The Material Non-compliance score (at both Indicator and PR level) has significant implications for Project approval and requires particular care. In judging whether the measures sufficiently address deficiencies the consultant should consider in a structured way both the level of residual (post-approval) risk and the level of confidence that the Project can successfully bring the issue into compliance with the Policy through the ESAP. Table 10 below illustrates the approach to be taken.

**Table 10: Risk /Confidence**

	<b>High</b>	<b>PC</b>	<b>MN</b>	<b>MN</b>
<b>Risk</b>	<b>Medium</b>	<b>PC</b>	<b>PC</b>	<b>MN</b>
	<b>Low</b>	<b>FC</b>	<b>PC</b>	<b>PC</b>
		<b>High</b>	<b>Medium</b>	<b>Low</b>
		<b>Confidence</b>		

**Table 11: Summary of EBRD Performance Requirements for the Investment Programme**

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required	ESAP Ref.
1	<b>Assessment and Management of Environmental and Social Impacts and Issues</b>				
	<p><b>Summary:</b>  Impacts have been identified and assessed and are addressed through mitigation measures provided in a reasonably comprehensive Environmental Management and Monitoring Plan (EMMP) within the ESIA. However the ESIA needs some further work to meet European Union (EU) standards and therefore a number of additional recommendations are proposed based on the ESIA gap analysis and general audit findings to ensure that the project is fully aligned and compliant with best practice, EBRD Performance Requirements and relevant EU standards. Further actions are proposed to ensure there is Organisational capacity and commitment.</p>				
1.1	<b>Environmental and Social Assessment</b>	PC	<p>The ESIA generally refers to the assessments methods used, but does not consistently set out the approach, or data used. The results of some assessments, such as operational noise, are not provided. The noise and air quality assessment are over reliant on professional judgement, which is not supported by robust assessment.</p> <p>A number of operational and environmental permits are in place but others are required to be obtained.</p>	<p>Revise the ESIA or provide ESIA supplements with the provision of additional information and additional studies in areas that include noise and air quality.</p> <p>Obtain the necessary permits prior to commencements activities for which the permits are required.</p>	3.1 - 3.10  1.6
1.2	<b>Environmental and Social Management Systems</b>	NOP	The Committee for Roads does not have an environmental management system. It is not known if the PIU has environmental management system.	Develop an environmental management system aligned to ISO 14001 for the PIU.	1.3
1.3	<b>Environmental and Social Policy<sup>10</sup></b>	NOP	It is not known if the Committee for Roads has an environmental and social policy.	Develop or review and update existing environmental and social policies for the PIU and incorporate into contractual arrangements with contractors.	1.5
1.4	<b>Environmental and Social Management Plan</b>	PC	The EMMP is reasonably comprehensive but requires further detail. There is some construction best practice included, but less operational mitigation. The scope of the required mitigation will be difficult to define for some topics due to a lack for robust baseline/impact assessment.	All actions as presented in the ESAP to supplement the ESIA and EMMP.	All
1.5	<b>Organisational Capacity and Commitment</b>	PC	The PIU and the Client should have adequate capacity to implement the Project. Although the PIU has not yet been decided. The contractors will also have responsibilities in terms of health and safety, traffic and road safety and environmental performance management. The contractors have not been appointed, so there is not enough information to assess their organisational capacity. In addition, the will be appointments of a PMC/PSC to oversee management of the project.	Assess organisational capacity after appointment of contractors and the PMC and PSC and implement capacity training as may be required.	1.2
				Ensure adequate staffing levels.	1.9

<sup>10</sup> Where the project represents a substantial extension to the client activities, confirm that Policy and supporting management systems and plans are appropriate for the new activities.



KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required	ESAP Ref.
1.6	<b>Supply Chain Management</b>	PC	The primary supply chain of the Project includes the construction companies that will be appointed to undertake the construction of the road. According to the Labour Code there will be no child labour or forced labour in the supply chain. Regular inspections of labour conditions and health and safety will be undertaken by the Road Police and other relevant government bodies. The national legislation does not require independent audits of the supply chain.	Independent audit of the supply chain is recommended.  Quarterly inspection of contractors' occupational health and safety (OHS) performance.  Set up and maintain an EHS incident reporting procedure to maintain records of annual monitoring, accidents and incidents.	2.5  1.7  1.8
1.7	<b>Project Monitoring and Reporting<sup>11</sup></b>	PC	The ESIA refers to weak monitoring procedures in Kazakhstan, and the reporting in the ESIA lacks baseline data and assessment information.		
<b>2</b>	<b>Labour and Working Conditions</b>				
	<b>Summary:</b> Construction companies are not appointed yet. Assessment included national legislation in terms and conditions of employment and health and safety regulations. Measures are proposed to ensure full compliance with PR2				
2.1	<b>Human Resource Policies and Working Relationships</b>	NOP	The contractors are not appointed yet, thus it is not possible to review and comment on their HR policies and the working relationships. It is assumed that they will comply with national legislation, which is an EBRD requirement.	Upon appointment of contractors, HR policies and practices should be provided for review. As part of the evaluation and selection process, criteria for past performance should be considered and whether there are policies in place.	1.5, 2.1, 2.8
2.2	<b>Child and Forced Labour</b>	FC	Child labour and forced labour are prohibited under the Labour Code of Kazakhstan and thus it is assumed that appointed contractors will be compliant both with EBRD requirements and with national legislation.	No actions required.	-
2.3	<b>Non-Discrimination and Equal Opportunity</b>	PC	The Labour Code of Kazakhstan and additional legislation prohibit non-discrimination and provide equal opportunities, though the construction industry is male dominated.	Upon appointment of contractors, HR policies and practices should be reviewed to confirm the company's stance on non-discrimination and equal opportunities. As part of the tender / bidding process environmental and social policies should be incorporated into contractual arrangements.	1.5, 2.1, 2.8
2.4	<b>Workers Organizations</b>	NOP	It is unlikely that collective bargaining agreements will be enforced by a trade union, as employees will most likely have individual contracts with the main contractor. Depending on the number of employees recruited there might be attempts to set up a workers organisation, though it is too early to provide an opinion on this.	Upon appointment of contractors, HR policies and practices should be reviewed to confirm the company's approach to workers organisation. As part of the tender / bidding process environmental and social policies should be incorporated into contractual arrangements.	1.5, 2.1, 2.8

<sup>11</sup> At appraisal stage there will be limited information. Compliance assessment should address specific plans for monitoring and reporting (against for example ESAP requirements) and also consider whether there is evidence of weak monitoring/reporting by client on other relevant projects – which may reduce confidence in future performance.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required	ESAP Ref.
2.5	<b>Wages, benefits, and conditions of work and accommodation</b>	NOP	The construction companies are not appointed yet, though the ESIA contains some measures to ensure that the workers' accommodation is compliant with IFC standards and will contain the necessary facilities to ensure hygienic conditions but full details are not provided. No information on wages and conditions of work are included in the ESIA.	Worker camps to fully meet IFC standards. Upon appointment of contractors, review wage and benefit structures and complete a workers accommodation inspection to ensure full compliance with IFC standards. As part of the tender / bidding process environmental and social policies should be incorporated into contractual arrangements.	1.5, 2.1, 2.8
2.6	<b>Retrenchment<sup>12</sup></b>	NA	Not applicable	No actions required.	-
2.7	<b>Grievance Mechanism</b>	PC/MN	No formal grievance mechanism for the workers or for the Project. The SEP prepared as part of this assignment contains the necessary strategies for internal and external communications including interaction with the contractors and the workers.	Approval and implementation of the SEP.	10.1, 10.3
2.8	<b>Non-Employee Workers</b>	NOP	No information available.	Upon appointment of contractors review the companies' stance on non-employee workers. As part of the tender / bidding process environmental and social policies should be incorporated into contractual arrangements.	1.5, 2.1, 2.8
2.9	<b>Supply Chain</b>	NOP	The primary supply chain is the construction companies who will be appointed to undertake the work. The supply chain management issues are not discussed in the EIA.	Compliance on labour and working conditions is required for all construction companies.	2.1
2.10	<b>Security Personnel Requirements</b>	NOP	It is too early to confirm whether security personnel will be employed to patrol the site. Security personnel are not discussed in the ESIA.	Upon appointment of contractors review their approach to site security.	4.5
3	<b>Resource Efficiency and Pollution Prevention and Control</b>				
	<i>NB. Appraisal should carefully consider (and state) what regulations or standards have been applied to compliance assessment (eg EU, National, Sector Best Practice). Assessments should address consideration of the performance of alternative techniques.</i>				
	<b>Summary:</b> A number of action areas have been identified where gaps have been identified in the ESIA as follows.				
3.1	<b>Resource Efficiency</b>	FC	The ESIA states that materials will be recycled within the project to reduce waste, and new materials required.	No actions required.	-

<sup>12</sup> Will not be applicable to many projects at appraisal stage. However evidence, within the last 3 years of client approach to retrenchment which is not compatible with the Policy should be taken into consideration.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required	ESAP Ref.
3.2	<b>Pollution Prevention and Control - Air emissions</b>	PC	Air Quality emissions have been calculated and it is anticipated that they will comply with Kazakhstan and EU limits, once the assessment has been revised to demonstrate the impacts on sensitive receptors more clearly. The ESIA states that noise emissions meet Kazakhstan standards, but the supporting assessment information and results were not proved in the ESIA. The lower IFC noise standard for residential areas should also be considered.	Baseline air quality data is required. Specify air quality monitoring technique and equipment for construction monitoring.  Undertake a baseline noise survey. Assess predicted noise and vibration at specified locations.	3.2  3.4
3.3	<b>Pollution Prevention and Control - Waste waters</b>	PC	Measures are included in the EMMP, but further measures are required and they need to be detailed in the design.	Further information required on wastewater treatment and disposal.	3.5
3.4	<b>Greenhouse Gases<sup>13</sup></b>	PC	Air emissions are assessed, but greenhouse gasses are not specifically identified, and their impacts are not assessed.	Assess greenhouse gas emissions and microclimate impacts.	3.1
3.5	<b>Water</b>	PC	Water requirements and some sources of water for use during construction have been identified, but groundwater recharge rates have not been considered. Further mitigation measures are required in the EMMP and design to reduce the risk of surface and groundwater contamination. Avoidance of depletion of water resources in the area is required, particularly as several wells are used by herders.	Assess water impacts to include the sources, groundwater recharge rates. Assess water use during the operation and maintenance and how wastewater from rest areas will be managed.	3.5
3.6	<b>Wastes</b>	PC	Anticipated wastes have been calculated and most of the disposal routes have been identified.	Provide materials used, estimated quantities and destination. Provide secondary containment measures for materials stored.	3.9
3.7	<b>Hazardous Substances and Materials</b>	PC	There has not been an investigation of potentially contaminated materials or any soil testing.	Identify or test potentially contaminated soils along the alignment and if the potential for the soil works to impact on groundwater near the bridges needs to be assessed further. Implement monitoring during the construction phase.	3.6

<sup>13</sup> Particular attention should be given to client demonstration of consideration of alternatives. Projects expected annually to produce more than 25,000 tonnes of Co2 equivalent should provide an emission inventory and plans for annual reporting.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required	ESAP Ref.
4	<b>Health and Safety</b>				
	<b>Summary:</b> A number of action areas have been identified where gaps have been identified in the ESIA as follows.				
4.1	<b>Occupational Health and Safety</b>	PC	The ESIA details the relevant national legislation governing Construction Safety, Roads Construction, Bridges and Pipes as well as guidance on PPE. The ESIA also contains reference to health and safety of the construction camp, hazardous materials and drinking water.	Individual contractor's health and safety policies and practices will need to be reviewed upon appointment.  Develop integrated Occupational Health and Safety Plan.	2.6  4.1
4.2	<b>Community Health and Safety</b>	NOP	There are no properties along the road section, however, road users and herders will be present during the construction period. Some of the OHS requirements under the national legislation cover fencing of equipment and prohibition of a public presence on the construction site. The signage of roads and facilitation of traffic and livestock crossing will be the sole responsibility of the individual construction companies. Community health and safety has not been assessed in the ESIA, it only refers to environmental and health impacts and possible emergency situations.	Upon appointment of contractors, review community health and safety plans and actions.  Provide a summary of how isolated properties with dirt roads joining the road will continue to be able to join the reconstructed road (during construction and when the road is complete and in full use).  Develop Construction Environmental Management Plans – which should include traffic management plans.  Conduct medical check for security personnel.  Independent audits of traffic and road safety measures introduced specifically for the site.	2.6  4.1  4.6  4.5  4.4
4.3	<b>Infrastructure, Building, and Equipment Design and Safety</b>	NA	Not applicable (Only traffic and road safety have been considered within the scope, as undertaken by road safety audit team with key recommendation areas summarised in this report).	No actions required.	-
4.4	<b>Hazardous Materials Safety</b>	PC	The potential for contaminated or hazardous material to be present along the alignment has not been assessed in the ESIA.	Identify or test potentially contaminated soils along the alignment and if the potential for the soil works to impact on groundwater near the bridges needs to be assessed further. Implement monitoring during the construction phase.  Provide materials used, estimated quantities and destination. Provide secondary containment measures for materials stored.	3.6  3.9
4.5	<b>Product and Services Safety</b>	NA	Not applicable (Only traffic and road safety have been considered within the scope, as undertaken by the road safety audit team with key recommendation areas summarised in this report).	No actions required.	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required	ESAP Ref.
4.6	<b>Traffic and Road Safety</b>	PC	A number of road safety concerns have been raised by the road safety audit team that include control of vehicle speeds, the issue on cattle and livestock crossings, intersection and U-turn layouts, cross sections, roadside hazard management, matching back into a two way highway and safety of pedestrians	Refer to recommendations provided in the road safety audit report.	
4.7	<b>Natural Hazards</b>	MN	Seismic activity and geohazards have not been considered in the ESIA.	Consideration should be given to geohazards and if none are anticipated this should be confirmed.	3.7
4.8	<b>Exposure to Disease</b>	PC	EMMP provides mitigation in the form of awareness campaigns to address the spread of sexually communicable diseases.	Separate facilities for men and women to avoid any unwanted contact or attention. Camp to meet IFC standards that set out security and hygiene requirements.	2.2, 2.3
4.9	<b>Emergency Preparedness and Response</b>	PC	Accidental spillage responses measures are included in the EMMP.	Prepare a site-specific Emergency Preparedness and Response Plan in consultation with contractors, sub-contractors, local emergency service providers and authorities.	4.3
<b>5</b>	<b>Land Acquisition, Involuntary Resettlement and Economic Displacement</b>				
	<b>Summary:</b> No physical or economic displacement is foreseen; a 30m right of way will be acquired from 9 affected landowners. Measures are proposed to ensure adequate consultation and compensation of informal land users and residents.				
5.1	<b>Avoid or minimise displacement</b>	FC	The preparation of the EIA included an analysis of alternatives. The road to be reconstructed does not go through settlements resulting in physical relocation. The land acquisition required for the project will have no significant impact on livelihoods and will result in no physical or economic displacement. The land acquisition –both temporary and permanent – will result in restricted crossing options for formal and informal herders farmers in the area.	No actions required.	-
5.2	<b>Consultation</b>	PC	Affected landowners were invited to the public hearing in August 2014 and were invited to the next public hearing that took place at the end of March 2015 this year. The public hearing provides the opportunity for affected people to get information about the Project, its design and to provide feedback on the land acquisition processes. There is no formalised stakeholder engagement plan that identifies relevant stakeholders and provides a systematic communication plan with internal and external stakeholders. As part of this assignment, an SEP has been developed to implement throughout the project life cycle.	Approval and implementation of SEP by the Client.	5.1, 10.1, 10.3

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required	ESAP Ref.
5.3	<b>Compensation for displaced persons</b>	PC	Compensation will follow Kazakh national legislation that recognises only the legal owners of the land and excludes informal land users and residents of the land. Compensation measures for legal owners and land users are in line with EBRD's requirements, however, Kazakh legislation does not allow for identification and compensation for informal land users or residents. Compensation in this case covers monetary and non-monetary services such as provision of crossing points, information dissemination on road works and other impacts that might hinder livestock activities thus forcing farmers to seek alternative crossing points or grazing land.	Identify informal land users and residents and compensate for any loss resulting from the land acquisition.	5.2
5.4	<b>Grievance mechanism</b>	PC	Affected people can seek alternative routes to submit complaints, though there is no formalised grievance mechanism set up for the Project. As part of the SEP prepared a grievance mechanism has been set up with designated roles and responsibilities.	Approval and implementation of the grievance mechanism detailed in the SEP.	10.1, 10.3
5.5	<b>RAP/LRP documentation</b>	NA	There is no physical or economic displacement foreseen as part of the project, so there is no need for a Resettlement Action Plan or a Livelihood Restoration Plan. The team was contemplating the recommendation of a Land Acquisition Plan, however, after the site visit it was established that the impacts of land acquisition will be minimal and thus there is no need for additional documents, the ESAP will be sufficient to identify actions related to land acquisition activities.	No actions required.	-
5.6	<b>RAP/LRP implementation</b>	NA	As above	No actions required.	-
5.7	<b>Monitoring</b>	PC	Monitoring of land acquisition related activities will form part of the annual monitoring of the Project performance, as all land acquisition related actions will form part of the ESAP. The EIA contains measures to monitor environmental and social impacts of the Project including those of resettlement and land acquisition activities.	Independent audit of land acquisition activities.	5.4
<b>6</b>	<b>Biodiversity and Living Natural Resources</b>				
	<b>Summary:</b> A number of action areas have been identified where gaps have been identified in the ESIA as follows.				
6.1	<b>Assessment of Biodiversity and Living Natural Resources</b>	PC	Protected habitats and species have been identified, but the potential severance of the habitat of antelope and other fauna, needs to be mitigated adequately.	Assess whether there are a suitable number of crossing points for wildlife (Jeyran) and herds (cattle). If not introduce further underpasses and gaps in road with the road safety measures and incorporate into road design.	6.1
6.2	<b>Conservation of Biodiversity</b>	PC	As above	As above	6.1

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required	ESAP Ref.
6.3	<b>Sustainable Management of Living Natural Resources</b>	PC	As above	As above	6.1
7	<b>Indigenous People</b>				
	<b>Summary:</b> Not applicable as there are no indigenous people in the Republic of Kazakhstan.				
7.1	<b>Indigenous People Assessment</b>	NA	There are no indigenous peoples.	No actions required.	-
7.2	<b>Adverse Effects Avoidance and Indigenous Peoples Development Plan</b>	NA	There are no indigenous peoples.	No actions required.	-
7.3	<b>Information Disclosure, Meaningful Consultation and Informed Participation</b>	NA	There are no indigenous peoples.	No actions required.	-
7.4	<b>Grievance Mechanism and Prevention of Ethnically Based Discrimination</b>	FC	The grievance mechanism set up under the new SEP will provide equal opportunities and multiple channels for all interested and relevant stakeholders to submit complaints or grievances. Under the national legislation, advertisements publicising the public hearings are required to be both in Kazakh and Russian to ensure inclusivity.	No actions required.	-
7.5	<b>Compensation and Benefit-Sharing</b>	NA	There are no indigenous peoples	No actions required.	-
7.6	<b>Impacts/Relocation on Traditional or Customary Lands and Cultural Heritage</b>	FC	Herding is a traditional employment and lifestyle in the steppe of Kazakhstan. The Project will have no significant long-term impact on this lifestyle and activity for local residents. Cattle crossings have been included in the design to ensure that herding can continue after the road development and temporary crossing points will be set up during the construction period to ensure undisturbed livestock crossing.	No actions required.	-
8	<b>Cultural Heritage</b>				
	<b>Summary:</b> Archaeological assessment has been undertaken and all sites of cultural significant have been identified. Measures are proposed to ensure memorials are preserved				
8.1	<b>Assessment and Management of Impacts on Cultural Heritage</b>	PC	Cultural heritage assets have been identified and mitigation measures proposed. This includes fencing of sites and additional measures to preserve statues and sites.	Memorial sites can be found along the road placed by families of people who passed away resulting from accidents on the road. Memorial sites were partially included in the Archaeology assessment, though no measures are identified to relocate memorial sites if necessary.	8.2
				For all sites, ensure access and prevention of damage.	8.1

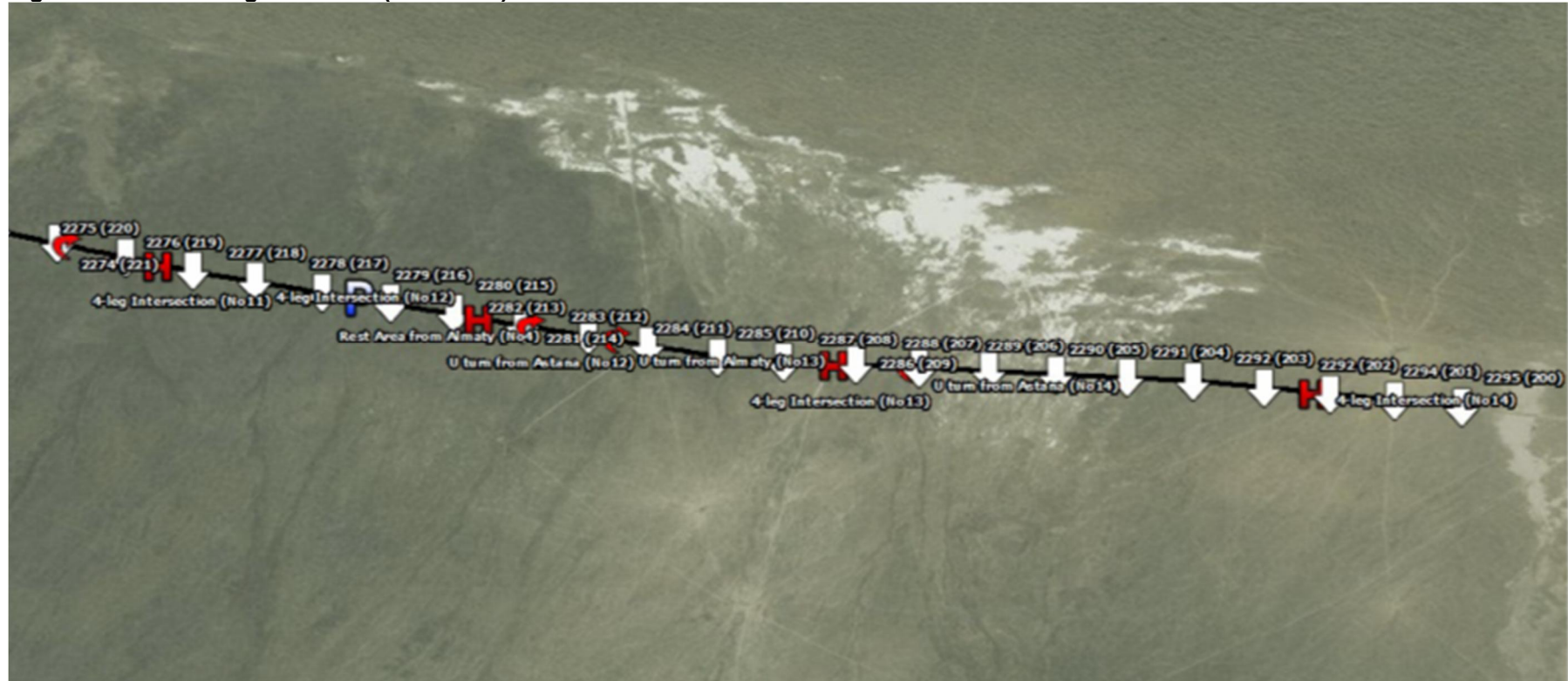
KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required	ESAP Ref.
8.2	Consultation with affected communities and other stakeholders	PC	Consultation with the Institute of Archaeology is being undertaken.	Consultation with stakeholders will be required prior to the relocation of accident memorials adjacent to the road. Report on 'chance finds' to allow for excavation and full archaeological assessment	8.2 8.3
8.3	Project use of Cultural Heritage	FC	Cultural heritage in the form of roadside monuments for accidents will be protected	No actions required.	-
10	<b>Information Disclosure and Stakeholder Engagement</b>				
	<b>Summary:</b> Public consultation has taken place and a further public consultation meeting took place at the end of March 2015 following disclosure of a revised ESIA. Measures are proposed to strengthen stakeholder engagement activities				
10.1	Stakeholder Engagement Plan	PC	Stakeholder engagement is a requirement under national legislation and public hearings were organised to disclose the ESIA. A more formalised systematic stakeholder engagement programme has been developed for the project identifying all relevant and interested stakeholders and the appropriate communication methods with them. The SEP contains the roles and responsibilities, frequency of consultation activities and monitoring requirements. The SEP provides the details of information to be disclosed and the timeframes.	Approval and implementation of the SEP.  Disclosure of documents in the public domain that include a NTS of the project.  An appointment to manage the implementation of the SEP is required.	10.1, 10.3  10.2, 10.5  10.4
10.2	Operational Grievance Mechanism	PC	Due to the bottom-up approach of stakeholder engagement, affected people and other stakeholders can easily find a way to officially file complaints or grievances through local authorities. A more formalised grievance procedure has been developed as part of the SEP to ensure compliance with EBRD requirements.	Approval and implementation of a grievance mechanism included in the SEP.	10.1, 10.3
	<b>Overall Compliance</b>				
	National Environmental, Social, Health and Safety Requirements	FC/PC	The project is compliant with regard to national EIA requirements. However, there are a number operational and environmental permits that are required to be obtained.	Obtain all necessary operational and environmental permits prior to commencement of construction works.	1.6
	EU Environmental, Social, Health and Safety Requirements	PC	As per comments provided in this table.	Actions proposed in this table.	all



# Appendices

# Appendix A: Site Plans and Maps

Figure A1: Road Design Features (2275-2295)



## Key

- Parking areas
- 1km intervals
- U-turns
- Intersections
- Bus stops
- Pedestrian crossings

Figure A2: Road Design Features (2250-2274)



Figure A3: Road Design Features (2224-2249)

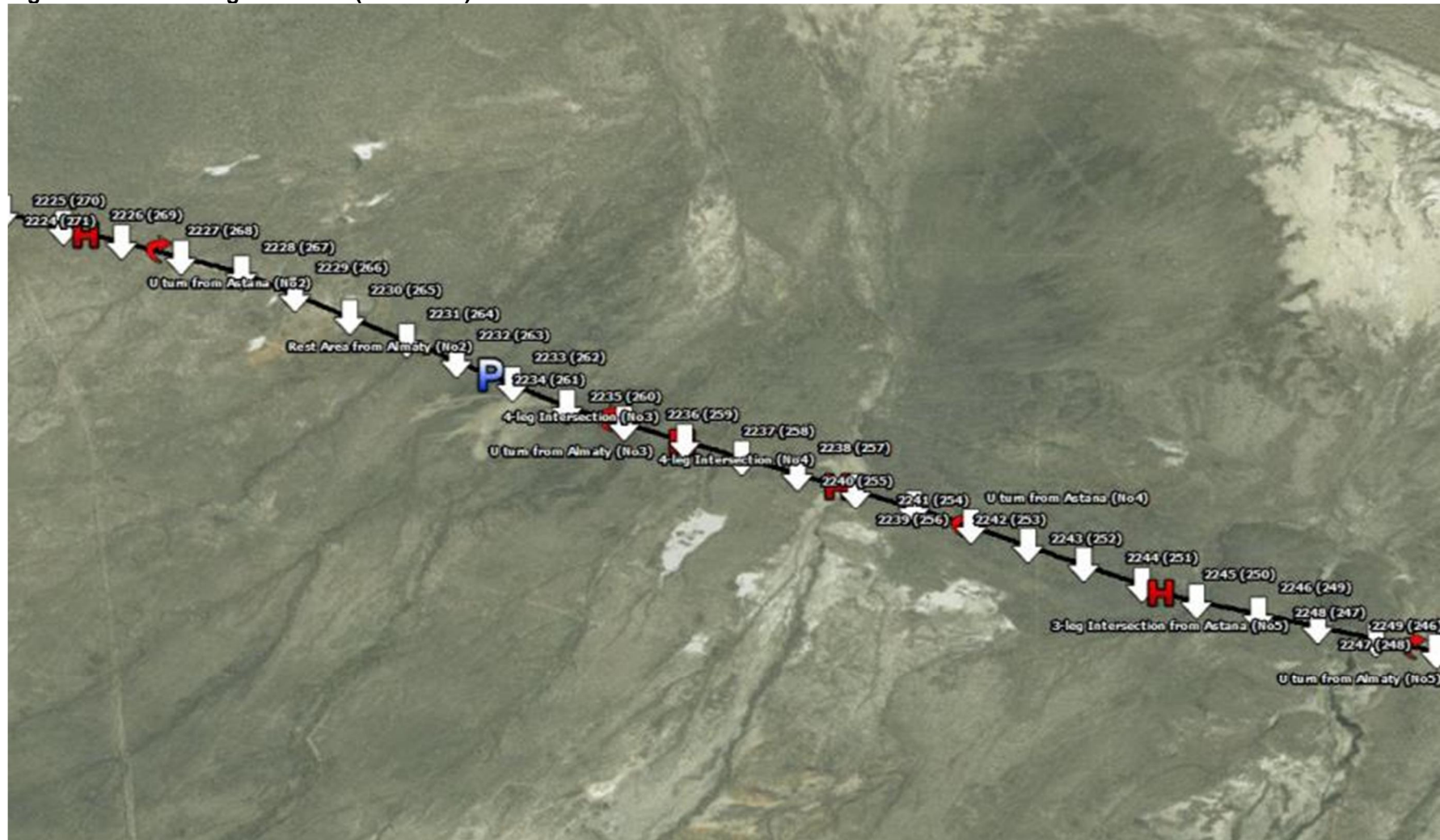


Figure A4: Road Design Features (2223-2214)

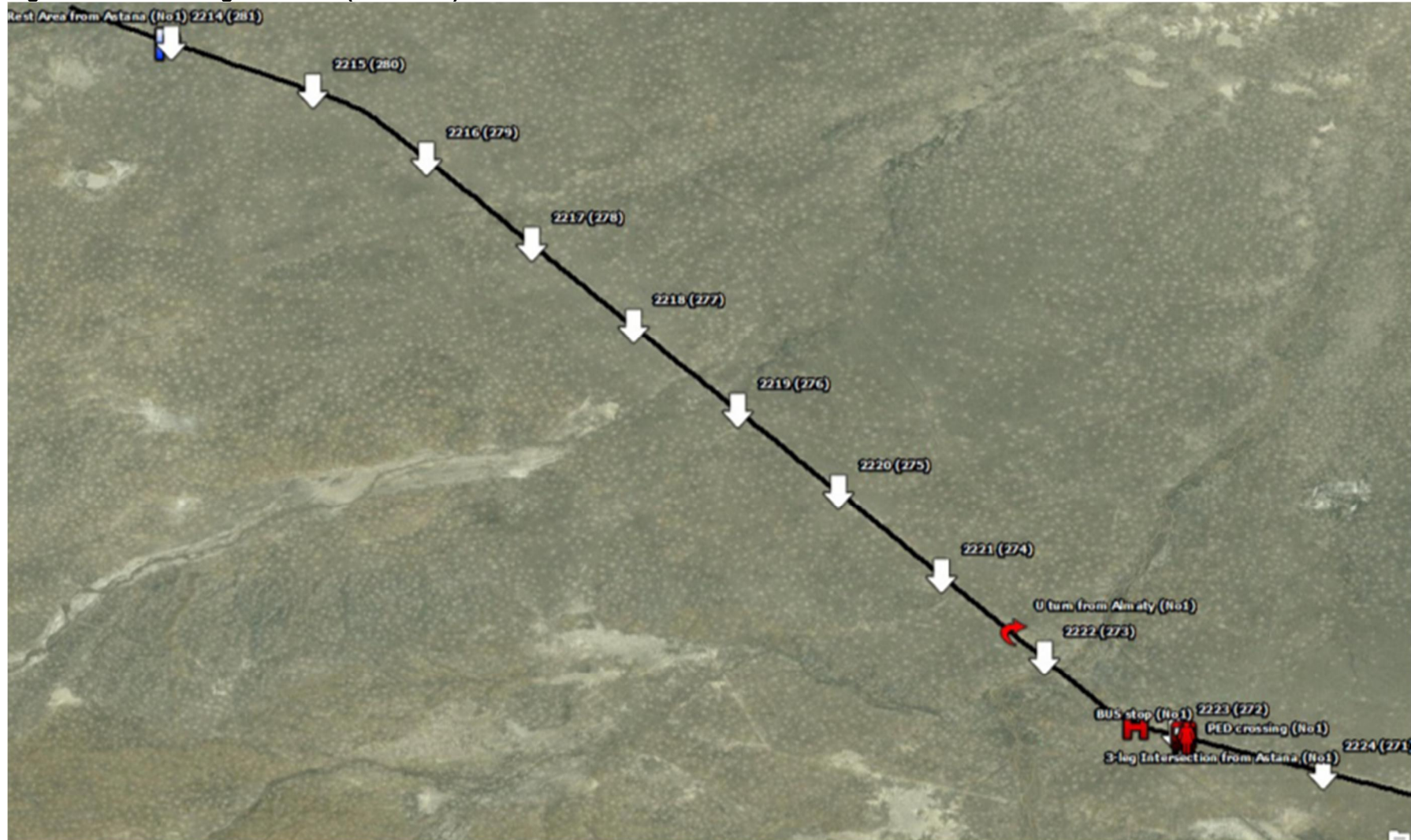


Figure A5: Schematic map of tolai hare meetings in spring (green) and autumn (purple circles)

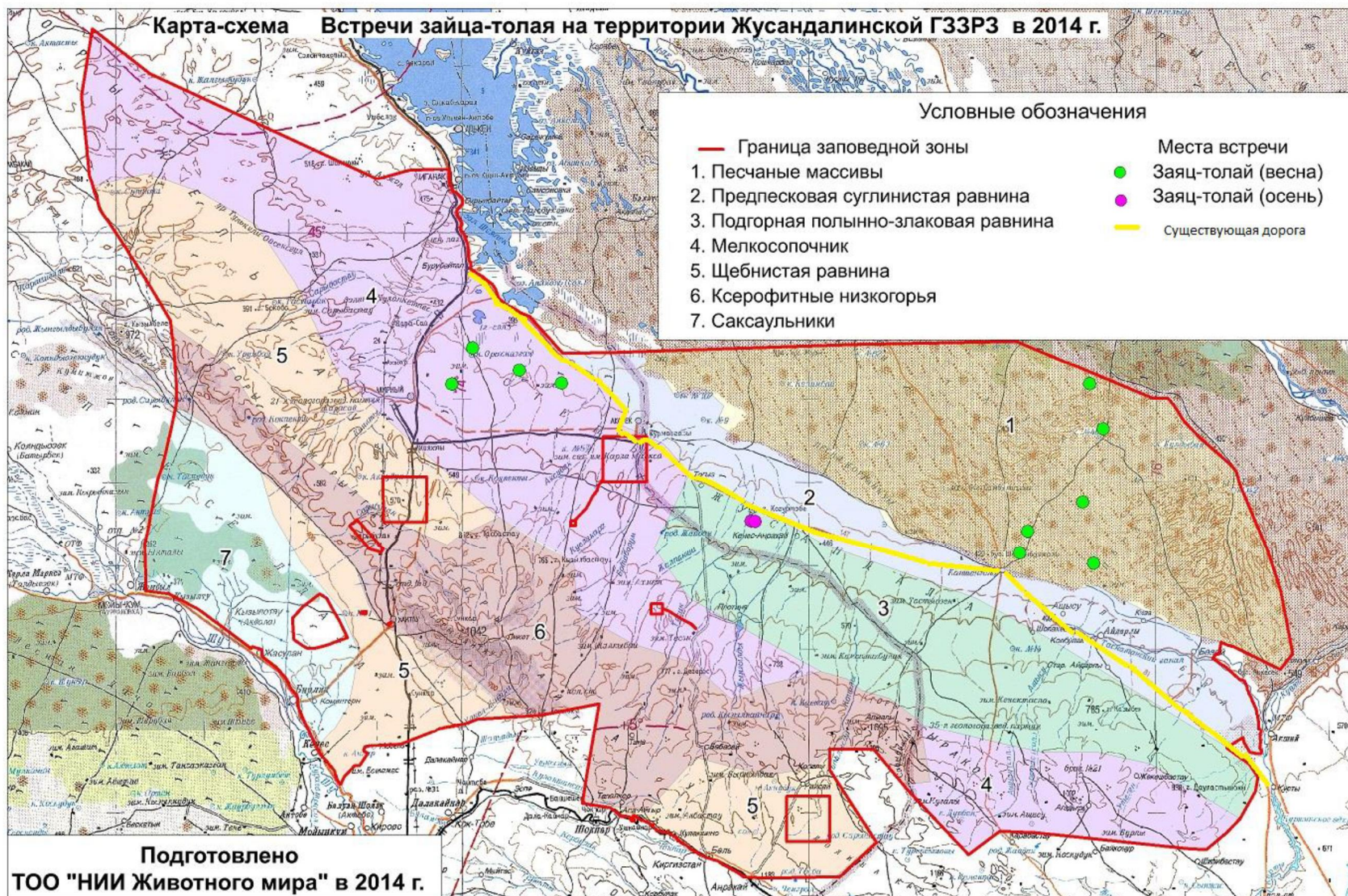


Figure A6: Schematic map of meeting goitered gazelle (green circles - spring; purple circles - autumn), wild sheep and roedeer (purple star – autumn traces)

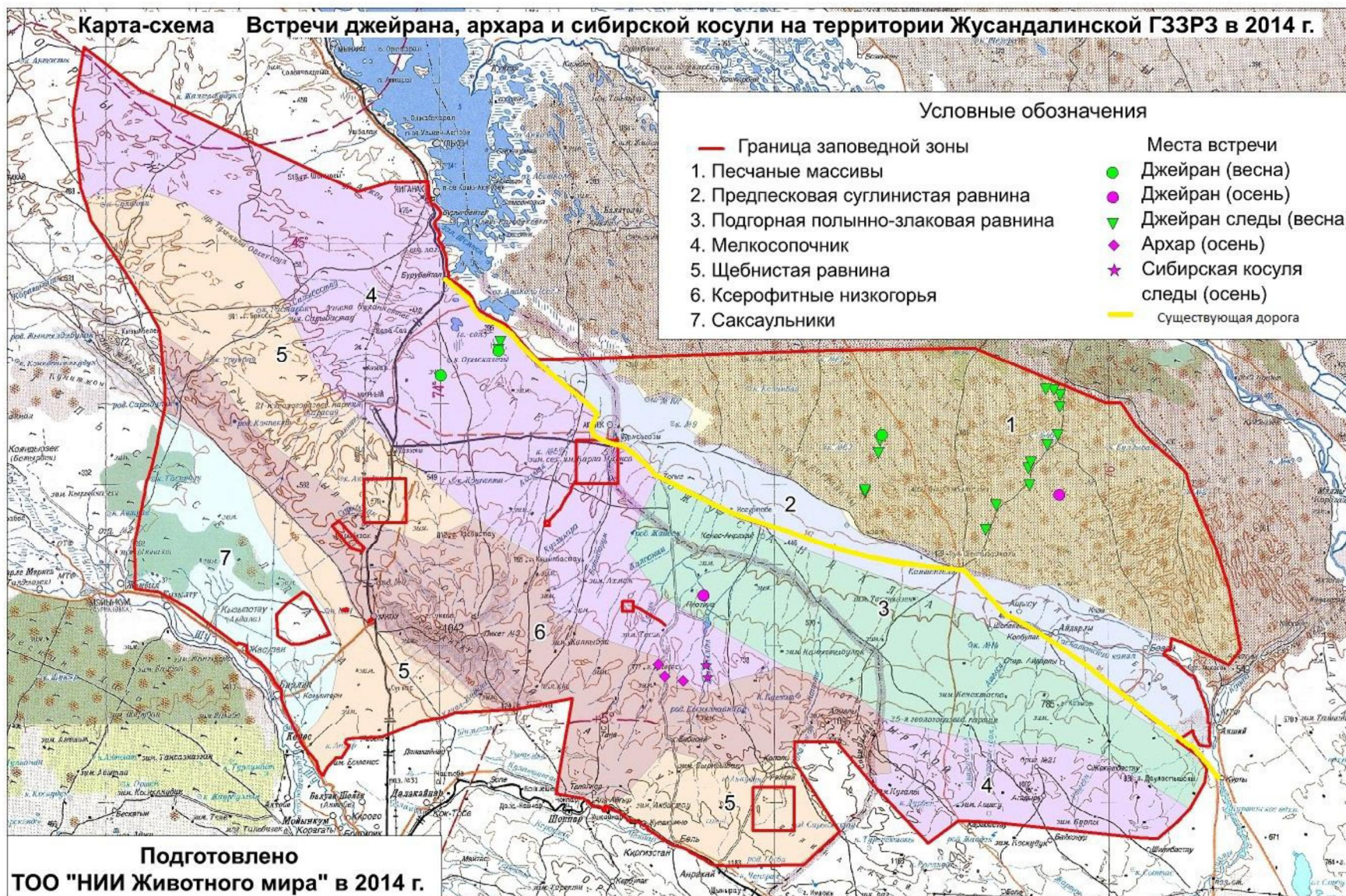
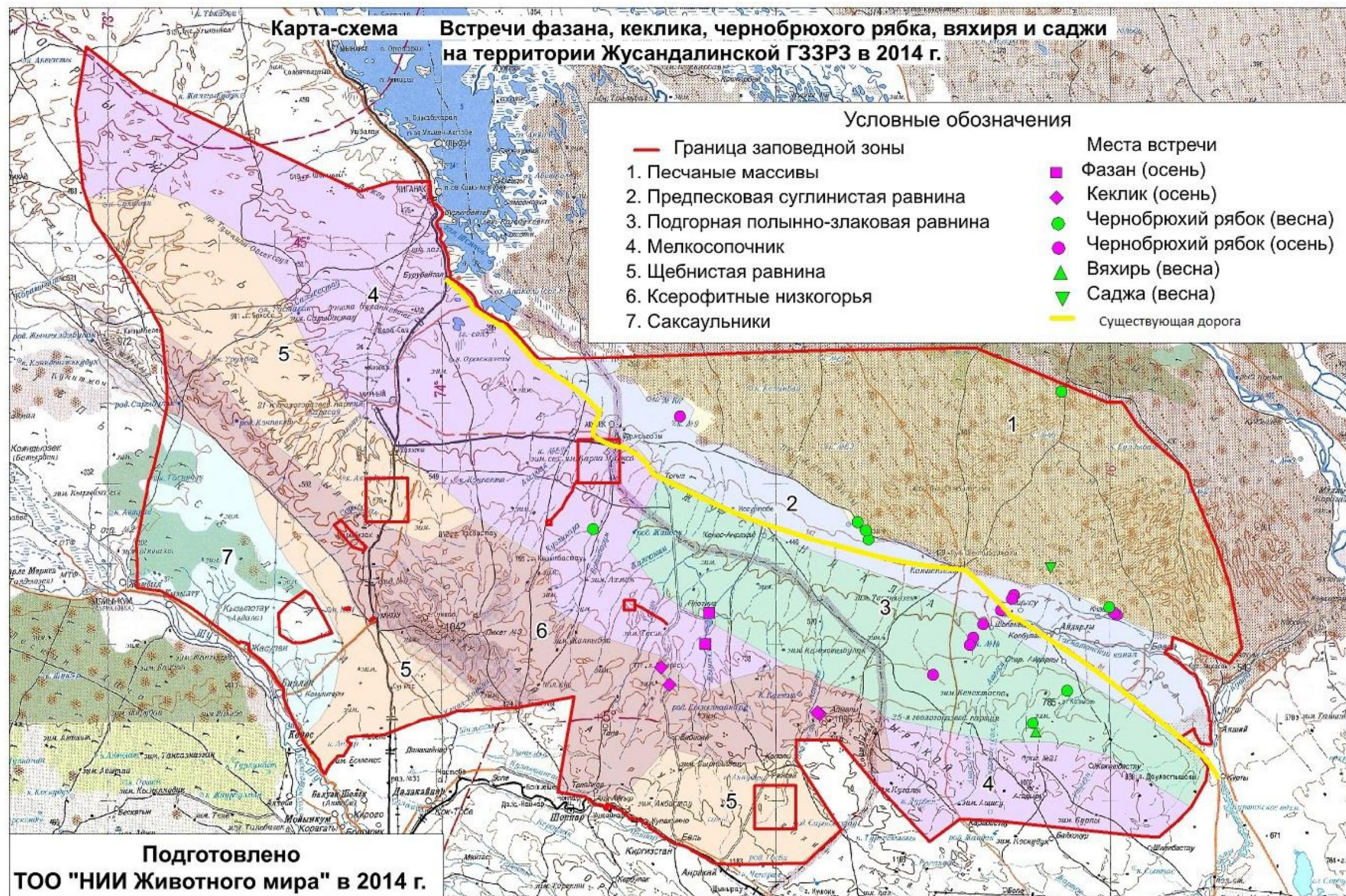


Figure A7: Schematic map of meeting pheasant, chukar, black-bellied sandgrouse, ringdove and Pallas's sandgrouse





## Appendix B: Documents Consulted

No	Document Name (English or Russian /Kazakh)	Document Details
1	ToR Cat A ROAD Gap Analysis and Disclosure.docx (English)	Environmental and Social assessment for EBRD, Terms of Reference, Gap Analysis & Disclosure pack :Category A Road Project, Kazakhstan – Kurty Buribaytal Road Project
2	WSP Proposal_Kazakhstan Kurty Buribaytal Project.pdf (English)	WSP proposal for this project
3	TOR-Road safety audit.docx (English)	Terms of Reference, Road Safety Audit
4	Environmental and Social Policy, European Bank for Reconstruction and Development, May 2014 (English)	New EBRD Policy Document with Performance Requirements
5	KURTY-BURYL BAYTAL-EISA 81 KM DRAFT FINAL_3.docx (English)	Draft Environmental and Social Impact Assessment (ESIA) Report of “kurty – burybaital” Road Section, km 2214 – 2295, part of reconstruction of “center – south” corridor linking Astana to Almaty, March 2, 2015
6	KURTY-BURYL BAYTAL-EISA 81 KM DRAFT FINAL EBRD.pdf (English)	
7	Appendices Kurty-Burylbaytal 81 km.pdf (English)	Appendix 1: Community Consultation / Public Hearing, Appendix 2: Conclusion of Archeological Expertise, Appendix 3: Selected Photographs of the Road Section
8	KURTY-BURYL BAYTAL-EIA Draft Final 22.01.2015.docx (English)	Draft Environmental Impact Assessment report of the section of “Kurty – Burybaital” of “Astana – Karaganda – Balkhash – Kapshagay – Almaty” Road, January 2015
9	Kurty-Burybaital Road section km 2214-2295.pptx (English)	Presentation of the project
10	EIA1EMP1june20.pdf (English)	Public Disclosure Authorised Feasibility Study: Reconstruction of the International Transit Corridor “Western China - Western Europe” KAZAKHSTAN SOUTH WEST ROAD CORRIDOR DEVELOPMENT PROJECT ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN AS OF JUNE 2008
11	EARFJune014102008.pdf (English)	Public Disclosure Authorised Central Asia Regional Cooperation (CAREC) Corridors 1, 3, 6 Western China-Western Europe International Corridor, Reconstruction of the International Corridor from Korgos to Aktobe Oblast, Environmental Assessment Review Framework (EARF), Cooperating International Financial Institutions: Asian Development Bank (Zhambyl Oblast), European Bank for Reconstruction and Development, (Aktobe Oblasts), Islamic Development Bank (Zhambyl Oblast), World Bank, South-West Corridor Road Project (South Kazakhstan, Kzyl Orda Oblasts), June 14, 2008, DRAFT
12	EA summary 5 of 6.pdf (English)	Public Disclosure Authorised Executive summary of draft Environmental Impact Assessment of the South West Roads Project: section Temirlan By-pass
13	ESIA_Vol 1.pdf (English)	Public Disclosure Authorised SOUTH WEST ROADS PROJECT: WESTERN EUROPE - WESTERN CHINA INTERNATIONAL TRANSIT CORRIDOR (CAREC-1 b & 6b), Environmental and Social Impact Assessment, Executive Summary, February 2009
14	Draft EIA_Kurty_comments.doc (English)	Comments provided on the draft EIA
15	Minutes of Public Hearings.docx (English)	Minutes of Meeting, On the Public Hearings under the Chairmanship of Deputy Akim of Ili district: Mr. Feil V.A, Kurty district, Akshy village, August 5, 2014
16	Public hearings in Russian.pdf (Russian)	As above in Russian

No	Document Name (English or Russian /Kazakh)	Document Details
17	Design Docs.zip (Russian)	Several folders of design documents
18	Kurty road.zip	Several photographs of the current road
19	Accidents data for section 2295-2214.xls (Russian)	Accidents between 2011-2014 on the Road section 2295-2214
20	Пояснит зап.doc (Russian)	Works Project, Volume 1, Executive Summary. Explanatory notes to the detailed design
21	Том 4 Охрана окружающей среды.pdf (Russian)	Volume 4, Environmental Protection Chapter in the detailed design
22	1. Пояснительная записка Астана-Алматы-Экспертиза последняя.pdf (Russian)	Volume 1. The basic design solutions, Book 1. Explanatory note, statements to the design drawings
23	2. ВОР Астана.pdf (Russian)	Work volumes register
24	ПЗ Алматы от 13.12.2014.docx (Russian)	Design scope of work
25	Additional Information of ESIA.docx (English)	ESIA develop (KazDorNII) providing additional information following discussion with EBRD covering: Public Consultation and Disclosure of Information and Grievance Redress Mechanisms. To be incorporated into the final version upon the disclosure of information prior to the second public consultation/ hearings in late March, 2014
26	<a href="https://cloud.mail.ru/690C5F745AF149B1BEE4AB5214EAA5A4">https://cloud.mail.ru/690C5F745AF149B1BEE4AB5214EAA5A4</a>	Maps provided of road with parcels of land for acquisition
27	15-03 Kurty-Buraybaytal Rd ESDD.kmz and 2214-2295 Rd.kmz	Google Earth Project for the road components
28	Bidding Documents for Shymkent - Border of Zhambyl Region Eng March 14.doc (English)	Bidding Documents of the Shymkent to Border of Zhambyl Oblast Road Section (in two lots 80 km, 4 Lanes), being financed World Bank. Similar to category of Kurty - Burybaital Road Section being considered for financing by EBRD financing
29	Resettlement Action Plan WB SECTION 2295-2380 Draft Final March 14.doc (English)	Resettlement Action Plan (RAP) Kurty - Burybaital Road Section 85 km of length being considered for World Bank financing (just before EBRD's section). RAP is required for the land acquisition and compensation
30	EBRD Executive summary.docx (English)	Draft Executive Summary of the Kazak Road Safety Audit
31	M36 Astana-Almaty.kml	Map of road with road features
32	Project man structure.pptx (Russian)	Structure for implementation of IFI-financed projects
33	Project approval structure.ppt (Russian)	Structure for the procedures for the preparation of projects
34	Project man structure.png (English)	Structure for project management
35	Aidarly_PH.pdf	Minutes – public hearing in frame of project realisation of “Kurty-Burybaital road section reconstruction,30 March 2015
36	Kurty_PH.pdf	Minutes – public hearing in frame of project realisation of “Kurty-Burybaital road section reconstruction,30 March 2015

## Appendix C: Photographs

**Photo 1: Almaty /Kapshagay Road Works**



**Photo 2: Start of EBRD Section of Road**



**Photo 3: Farmhouse in the Distance**



**Photo 4: Located Area of a Construction Pad**



**Photo 5: Herd crossing the road without herder**



**Photo 6: Road showing Straight Alignment**



**Photo 7: Dirt Road leading to Road**



**Photo 8: Culvert under Road**



**Photo 9: Isolated House with a Dirt Road**



**Photo 10: Excavation Area near to Road**



**Photo 11: Heavy Goods Vehicle on Road**



**Photo 12: Bridge on Road**



**Photo 13: Heavy Goods Vehicles Parked**



**Photo 14: Well closest to the Road**



**Photo 15: Closest Farmhouse Observed**



**Photo 16: End of EBRD Section of Road**



## Appendix D: Environmental and Social Action Plan

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
<b>PR1</b>	<b>Assessment and Management of Environmental and Social Impacts and Issues</b>						
1.1	Incorporate this ESAP so that the Project is structured to comply with the Bank's Performance Requirements. Prepare annual monitoring reports on the status of ESAP implementation. Include in the report stakeholder engagement activities and resolution of grievances	Compliance with EBRD performance standards	EBRD PR1 to PR10 excluding PR7 & PR9	Own resources and PIU	Annual submission	Report on ESAP implementation status and stakeholder engagement activities and resolution of grievances	
1.2	Clearly identify team structures, organisations roles and responsibilities (Committee for Roads)  Confirm PIU  Inform on appointments of contractors, project management consultants (PMC), construction supervision consultants (CSC) and any other key appointments	Compliance with EBRD performance standards	EBRD PR1	Own resources and PIU	PIU on appointment, others as part of annual submissions	Provision of management structure, roles and responsibilities (including contracting companies) Names of companies appointed	Approved
1.3	Assess the capacity of implementing units, contractors, organisations, PMCs, CSCs and other key appointments  Develop workforce capacity building programmes for successful project implementation	Compliance with EBRD Performance standards	EBRD PR1	Own resources, PIU and external consultants	On appointment and continue as part of the annual review	Report on assessment of capacity  Trainings identified and implemented	

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
1.4	Develop and implement Environmental Management Plan for PIU taking into account the best international practice aligned to ISO 14001	Optimisation of environmental management through a formalised system	EBRD PR1 Voluntary and best practice	PIU EMS. Own resources and /or external consultants (cost dependent on extent of support)	End of 2016	Develop and implement an EMS Annual EHS Report to the Bank	Approved for the PIU
1.5	Review labour and social policies and incorporate into contractual arrangements with contractors – to include terms of employment, skills, dismissal, discrimination, harassment, violations, human rights, forced and child labour, wages and social leave/benefits and bribery and corruption	Contractor management	EBRD PR1, PR4	Provided by contractors and verified by the PIU	Prior to construction activities	Contractor employment and social policies Consolidated report including pp.2.1 and 4.2	Approved
1.6	Obtain the necessary permits prior to commencements of activities for which the permits are required. These include permits of temporary and permanent land use – construction pads, spoil dumps, contractor camps, batching plant and also environmental permits to cover air emissions, water use etc. that have not been obtained	Compliance with regulatory Kazakhstan requirements	EBRD PR1	Internal resource with support of PIU and /or resourced externally (for technical support in application processes)	Prior to construction activities commencing	Correspondence with regulatory bodies, copies of permits and certificate	
1.7	Conduct monthly inspection of contractors' occupational health and safety (OHS) performance. Contractor's report on performance to EBRD every six months during construction	Ensure contractor adoption of EBRD requirements for OHS	EBRD PR1	Own resources and /or external consultants	During construction	Report submitted to the Bank as part of annual report	
1.8	Set up and maintain an EHS incident reporting procedure to maintain records of annual monitoring, accidents and incidents. The procedure must be overarching, unique and integrated for the Project and for the contractors located on site	Set up an EHS incident reporting procedure	EBRD PR1	Own resources, contractors	Prior to construction	Monthly EHS reports on the project made by the contractor. Reports to the Bank within annual report	

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
1.9	Client, contractors, PMCs, CSCs to provide sufficient staffing to manage the environmental, health and safety and social performance of the Project	Ensure appropriate Organisation Capacity and Competency	EBRD PR1	Own resources, PMCs, CSCs and contractors	Prior to start of construction and during the mobilization	Appointment letter of EHS management. Outline of all key staff roles and adequate staffing levels	
<b>PR2</b>	<b>Labour and Working Conditions</b>						
2.1	<p>Develop and adopt a Human Resource Policy and management system covering all employees, contractors and sub-contractors, to include (but not be limited to):</p> <ul style="list-style-type: none"> <li>• Approach to managing its workforce</li> <li>• Management of worker relationships</li> <li>• Access to worker's organisations</li> <li>• Working conditions and terms of employment</li> <li>• Child labour and forced labour policies</li> <li>• Equal opportunities and non-discrimination</li> <li>• Oversight provided of contractor policies/procedures</li> <li>• Access by all workers to policy/procedures in their language(s)</li> </ul>	To ensure management of workforce in line with EBRD requirements.	EBRD PR2 Labour Code of the Republic of Kazakhstan	Own resources, PIU	<p>HR policy developed and adopted: prior to further construction activities</p> <p>Contractor policies/ procedures reviewed/ approved: prior to work on-site</p> <p>HR Policies implemented throughout construction and operation</p>	<p>Consolidated report with pp.1.5 and 4.2</p> <p>Technical specifications to the contract documentation</p> <p>Written HR policies compliant with EBRD PR2 and the national Labour Code</p>	Specified in the Employment Contract and technical specification
2.2	Consider the possibility to employ local residents taking into account gender policy	Provision of equal opportunities and improving economic prospects of local residents	EBRD PR2	Own resources	Prior to and during construction	Report on employing local residents taking into account gender policy within the annual monitoring report	



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
2.3	Document the constructors' labour accommodation strategy and principles. Develop a code of conduct adopted to govern life in the workers camp specific to the Project and the site.	To standardise accommodation provided to the workers employed by the contractors  To minimise influx impacts on local communities	EBRD PR2	Own resources, PIU, construction companies	Prior to construction of labour accommodation or camp being accommodated by workers	Technical statement to the contract documentation	approved
2.4	Consideration of the applications from the local residents in their language (s) in accordance with the legislation of RK. Set up and maintain a formal grievance mechanism for employees and contractors and disseminate information about its uses to the workforce in the language(s) of the workers	To provide a channel for raising workers' concerns and a transparent, consistent mechanism for resolution	EBRD PR2	Own resources	Prior to construction Report to EBRD on grievances and resolutions proposed	Adoption of formal grievance mechanism detailed in the SEP	Can be applied
2.5	Arrangement of inspections involving independent consultants and other state and non-government organizations in order to audit the compliance of contractors with the Labour Code of RK	To prevent non-compliance with the requirements of the employment policy of EBRD and Labour Code of RK	EBRD PR2	Own resources, PIU	Audit arrangement within 3 months after the project mobilization	Within the annual monitoring report	Can be applied
2.6	Undertake the tender process for the construction works to identify contractors with inclusion of environmental, health and safety performance, accidents statics, management systems and policies	Contractor management	EBRD PR1, PR2, PR 4	Own resources with support of PIU	During contractor selection process	Tender documentation	
<b>PR3</b>	<b>Resource Efficiency and Pollution Prevention and Control</b>						
3.1	Implementation of recommendations provided by consultants in ESIA and in the report: <ul style="list-style-type: none"> <li>To amend ESIA if it is necessary</li> </ul>	Environmental impacts	EU EIA	Own resources, PIU, CSC and contractors	Prior to and during the construction	Progress report within the annual monitoring report	

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
3.2	<p>Undertake baseline air quality monitoring for NO<sub>2</sub> at locations along the alignment for a minimum of 3 months (and preferable 6 months) prior to the start of construction.</p> <p>Undertake visual dust monitoring daily during construction, and dust dampening measures taken if required.</p> <p>Establish a complaints hotline for the duration of the works and the number should be displayed at appropriate locations near the scheme</p>	Environmental impacts	EU EIA	Own resources, PIU, CSC and contractors	After defining the contractor in accordance with the work schedule	Progress report within the annual monitoring report	update d
3.3	Provision of maps to show locations of settlements or at least state the distance to the nearest dwelling along sections of the alignment. Show any sensitive air quality receptors	Environmental impacts	EU EIA	Own resources, PIU, CSC and contractors	After defining the contractor in accordance with the work schedule	Progress report within the annual monitoring report	update d
3.4	<p>Undertake day-time, evening and night-time noise surveys along the alignment to establish the noise baseline. This information should then be used to identify any locations with existing elevated noise levels, and to consider the implications of any increases on these locations</p> <p>Predict construction noise and vibration at specified locations</p>	Environmental impacts	EU EIA	Own resources, PIU, CSC and contractors	After defining the contractor in accordance with the work schedule	Progress report within the annual monitoring report	

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
3.5	<p>Undertake an assessment of water impacts to include the sources, groundwater recharge rates and how wastewater will be discharged, treatment methods and if there are any significant impacts during construction</p> <p>Assess water use during the operation and maintenance of production facilities and how wastewater will be managed</p> <p>Specify location of ponds and interceptors for surface water capture and treatment</p>	Environmental impacts	EU EIA	Own resources, PIU, CSC and contractors	<p>After defining the contractor in accordance with M&amp;A</p> <p>During and after construction</p>	Progress report within the annual monitoring report	updated
3.6	<p>Supervise potentially contaminated soils along the alignment and if the potential for the soil works to impact on groundwater near the bridges needs to be assessed further</p> <p>Implement monitoring during the construction phase</p>	Environmental impacts	EU EIA	Own resources, PIU, CSC and contractors	During construction	Progress report within the annual monitoring report	approved
3.7	Consideration should be given to geohazards and if none are anticipated this should be confirmed	Environmental impacts	EU EIA	Own resources, PIU, CSC and contractors	During geological works	Progress report within the annual monitoring report	
3.8	Consideration to visual impact should be addressed to include stockpiling and reinstatement of bare ground	Environmental impacts	EU EIA	Own resources, PIU, CSC and contractors	During and after construction	Progress report within the annual monitoring report	available
3.9	<p>Provide materials used, estimated quantities and destination</p> <p>Provide secondary containment measures for materials stored</p>	Environmental impacts	EU EIA	Own resources, PIU, CSC and contractors	<p>After defining the contractor in accordance with M&amp;A</p> <p>During construction</p>	Progress report within the annual monitoring report	
<b>PR4</b>	<b>Health and Safety</b>						

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
4.1	Provide a summary of how isolated properties with dirt roads joining the road will continue to be able to join the reconstructed road (during construction and when the road is complete and in full use)	Avoidance of local population severance	PR4	Own resource (with design company), PIU, CSC and/or contractors	After defining the contractor in accordance with M&A	Report on findings, with changes to road design as needed	Will be paraphrased

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
4.2	<p>Develop an integrated Occupational Health and Safety Plan that is compliant with national legislation, monitoring and management systems to cover any operation of the Project. The system should cover:</p> <ul style="list-style-type: none"> <li>• Job- and task-specific hazard analysis and controls</li> <li>• PPE requirements and enforcement mechanisms</li> <li>• Designation and enforcement of smoking/no-smoking areas</li> <li>• Safety training for all personnel in their own language(s)</li> <li>• Review of contractors OHS plans, to meet same standards as Project Company plans</li> <li>• Oversight of contractor OHS development / implementation, including mandatory reporting to CSC</li> <li>• Record-keeping, including total work-hours, lost work-hours due to accidents/incidents, description of lost-time incidents, hospitalisations, fatalities</li> <li>• Toolbox talks to share information on risks, accident prevention, etc.</li> </ul> <p>The same integrated document must be applied to all parties involved in the construction and operation of the Project.</p>	To minimise accidents and incidents and ensure safety of workers and equipment	EBRD PR 4 SNiP 3.06.04-91 SanPiN No3 01.016.97	Own resources, PIU, CSC and contractors	Prior to construction	<p>Consolidated report with pp. 1.5 and 2.1</p> <p>OHS Plan adopted to contractors</p> <p>Report to EBRD on status of plan development and on OHS performance, including work-hours, lost-time incidents, major accidents, fatalities (including actions taken in response to accidents) – include contractor data separately and combined</p>	corrected

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
4.3	Prepare a site-specific Emergency Preparedness and Response Plan in consultation with contractors, sub-contractors, local emergency service providers and control authorities (if required in case of specific types of work)	Prepare for emergencies to minimise negative impacts	EBRD PR4 National legislation	Own resources, PIU, CSCs, Contractors and/or external experts from government agencies (if required)	Prior to construction	Documentation of the Emergency Preparedness and Response Plan	agreed
4.4	Independently audit traffic and road safety measures introduced specifically for the site	Ensure an independent review of traffic and road safety measures	EBRD PR4	Own resources, PIU, CSCs, Contractors and/or external experts from government agencies (if required)	Annually during construction	Report on independent traffic and road safety audit	agreed
4.5	Conduct due diligence investigation for all security personnel of the contractor to make sure they have appropriate licensing, experience and training.	Prevent conflict between security personnel and local communities  Prevent potential human rights violations by security personnel	EBRD PR4 Best practice	Own resources, PIU, CSCs and Contractors	Prior to construction work	Due diligence carried out and documented  Report to Bank any incidents involving security guards	agreed

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
4.6	<p>Implementation of safe practices during construction to minimise potential impacts to local communities during construction to include:</p> <ul style="list-style-type: none"> <li>Construction vehicles to keep to agreed access routes and adhere to speed limits</li> <li>Information boards about public safety hazards and emergency contact information</li> <li>Hazardous materials and wastes stored on site to prevent community exposure to these substances</li> <li>Publishing of temporary livestock crossing sites and road works that disrupt traffic</li> </ul> <p>These measures should be part of Construction Environmental Management Plans – which should include traffic management plans)</p>	To minimise accidents and incidents with road users, local communities and livestock	EBRD PR4	Own resources, PIU, CSCs and Contractors	Prior to and during construction	Within annual monitoring report	approved
<b>PR5</b>	<b>Land Acquisition, Involuntary Resettlement and Economic Displacement</b>						
5.1	Implement the SEP (See Action 10.1 to develop an SEP) and a formal grievance mechanism, and continued consultation with people affected by land acquisition	Avoid misunderstandings and provide up-to-date information on land acquisition activities	EBRD PR5, PR10	Own resources, local authorities, PIU with a key role for the CLO and/or Social Affairs Officer	Prior to and during land acquisition	Document stakeholder engagement activities to include land acquisition Annual report on stakeholder engagement	

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
5.2	Identify informal land users for their inclusion in the compensation and consultation scheme. Informal land users residing temporarily in the area will need to be identified prior to compensation payment and included in the framework for compensation – if appropriate. Compensation measures should include both monetary and non-monetary measures such as extended consultation and information dissemination, alternative animal crossings and compensation for lost pastures resulting from construction activities.	Compensation for informal livelihoods	EBRD PR5	Own resources, local and district level authorities, PIU with a key role for the CLO and/or Social Affairs Officer	Prior to and during land acquisition	Compensation framework identifying informal land users and adequate compensation measures The report shall be provided within the annual monitoring report	
5.3	Land acquired for temporary structures for the duration of the construction will be re-cultivated and returned to the original owner. The re-cultivation will include the removal of any waste, structures, equipment and materials. According to H&S regulations, any hazardous chemicals, waste or other substances will be safely removed from the area to mitigate impacts on the community	To minimise long-term impacts of land acquisition	EBRD PR5	Own resources, PIU, CSCs, Contractors	After construction	Land cleared, re-cultivated and returned to original owner	
5.4	Independently audit land acquisition and compensation activities to ensure compliance with EBRD PR5. The audit will assess all aspects of land acquisition and will undertake a gap analysis to identify any gaps or missed actions during the land acquisition process.	Ensure compliance with EBRD requirements	EBRD PR5	PIU, CSCs	After completion of land acquisition	Within the annual monitoring report	
<b>PR6</b>	<b>Biodiversity and Living Natural Resources</b>						



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
6.1	<p>To provide suitable number of crossing points for wildlife (Jeyran) and herds (cattle). If necessary, introduce further underpasses and gaps in road with the road safety measures</p> <p>Undertake pre-construction surveys to check for the presence of protected species. Fence off as appropriate based on finding</p> <p>Do not undertake vegetation clearing during bird breeding season</p>	Avoidance of wildlife severance	EBRD PR6	Own resources, PIU, CSC, Contractors and / or resourced externally (for ecological expertise, as required)	<p>Prior to construction</p> <p>During construction</p>	Within the annual monitoring report	
<b>PR7</b>	<b>Indigenous People</b>						
Not applicable as there are no indigenous people affected by this project							
<b>PR8</b>	<b>Cultural Heritage</b>						
8.1	Introduce mitigation measures to preserve sites of cultural significance and archaeologies sites in the area to include fencing of sites and ensuring that construction activities will not prevent access to sites or will damage the sites	Preserve sites of cultural significance	EBRD PR8	Own resources, local authorities, PIU, CSCs and contractors	Prior to and during construction	Document plans and actions to preserve cultural heritage sites or provide the report of the authority. Consolidated with p.8.2 Within the annual monitoring report	
8.2	Introduce mitigation measures to preserve memorial sites along the road and if necessary identify the appropriate relocation processes with the informed consent of the owner of the memorial site (relatives)	Respecting traditions and customs	EBRD PR8	Own resources, local and district authorities	Prior to and during construction	Document plans and actions to preserve cultural heritage sites or provide the report of the authority. Consolidated with p.8.1 Within the annual monitoring report	

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
8.3	Report 'Chance finds' to the authorities and other relevant institutions to undertake excavation and full archaeological assessment of the finds	To preserve cultural heritage	EBRD PR8 National legislation	Own resources, PIU, CSCs, Contractors	During construction	Report on any archaeological findings and excavation	
<b>PR10</b>	<b>Information Disclosure and Stakeholder Engagement</b>						
10.1	Introduce a Stakeholder Engagement Plan, including a Grievance Mechanism (SEP)	EBRD performance requirements	EBRD PR10	WSP is developing an SEP for use by the PIU	After agreement with ARC (Automobile Road Committee) but before construction	Disclosure of SEP	possible
10.2	To disclose a Non-Technical Summary (NTS) providing a project description, the ESIA process, the environmental and social benefits/impacts, mitigation and management measures and the contact details for communications with a link to the SEP	EBRD performance requirements	EBRD PR10	WSP is developing an NTS for public disclosure	After agreement with ARC but before construction	Disclosure of NTS in the public domain	
10.3	Implement the SEP and grievance mechanism to ensure a continuous and systematic stakeholder engagement programme throughout the project life cycle. Documentation of all stakeholder activities and logging of grievances to inform the annual monitoring report. The SEP should be reviewed and if necessary updated annual or when changes occur in the Project Or to apply the grievance mechanism document developed by ABD for road sector and IFIs	Information dissemination and continuous engagement with affected stakeholders	EBRD PR10	PIU, authorities engaged in accordance with Grievance Committee	Prior to and during construction	Annual report on stakeholder engagement within the monitoring report	possible

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
10.4	Appoint a Community Liaison Officer (CLO) with appropriate skills and experience to effectively manage the implementation of the SEP	Liaison with local communities and authorities on a regular basis, analyse interaction and provide updates and practical recommendations	EBRD PR 1 EBRD PR 10	PIU, CSC	Prior to construction	Appointment of CLO	
10.5	Disclosure of documents that include the ESIA, ESIA supplements, SEP, NTS and the ESAP in accordance with requirements for EBRD Category A projects	EBRD performance requirements	EBRD PR10	PIU with a key role for the CLO	See SEP for full details of information to be disclosed and the timeframes	Disclosure of key documents in the public domain Document grievances and response to grievances with records maintained	

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