

PUBLIC

European Bank for Reconstruction and
Development

SUPPLEMENTARY ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT REPORT NON-TECHNICAL SUMMARY

Kapshagai Town-Kurty Village 67 km Road
Project, Kazakhstan

VERSION 2
AUGUST 2018

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Kazakhstan

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1 NON-TECHNICAL SUMMARY

1.1 PURPOSE OF THE NON-TECHNICAL SUMMARY

This Non-Technical Summary (NTS) provides an easily understandable summary of the information that is provided in the Supplementary Environment and Social Impact Assessment (ESIA) Report. The purpose of the NTS is to help the public and non-experts to understand the background, Project description, the Supplementary ESIA process, the beneficial and adverse environmental and social impacts and effects, and the mitigation measures associated with the Project.

1.2 PURPOSE OF THIS SUPPLEMENTARY ESIA REPORT

The Supplementary ESIA Report has been prepared for the European Bank for Reconstruction and Development (EBRD) who are considering extending finance for the reconstruction of the 67 kilometre (km) “Kapshagai-Kurty” of the “Centre - South” corridor linking the cities of Astana to Almaty in Kazakhstan (herein referred to as the Project). The finance is sought by the Committee for Roads within the Kazakhstan Ministry of Investment and Development.

The Supplementary ESIA Report provides provide additional information to the local Environmental Impact Assessment (EIA) completed by the local EIA developer, to further consider the potential for significant effects and mitigation measures, where required.

1.3 EBRD PROJECT REQUIREMENTS

EBRD requirements are as follows:

- The Project will be structured to meet relevant EU substantive environmental standards, including (but not limited to) Directive 2014/52/EU of the European Parliament and of the Council amending Directive 2011/92/EU on the Assessment of the Effects of Certain Public and Private Projects on the Environment (herein referred to as the EIA Directive);
- When host country regulations differ from EU substantive environmental standards, the Project will be expected to meet whichever is the more stringent;
- It will be in compliance with the EBRD Environmental and Social Policy (ESP) and Performance Requirements (PRs) 2014, which are as follows:
 - PR1: Environmental and social appraisal and management;
 - PR2: Labour and working conditions;
 - PR3: Pollution prevention and abatement;
 - PR4: Community health, safety and security;
 - PR5: Land acquisition, involuntary resettlement and economic displacement;
 - PR6: Biodiversity conservation and sustainable management of living natural resources;
 - PR8: Cultural heritage;
 - PR9: Financial intermediaries; and
 - PR10: Information disclosure and stakeholder engagement.
- The Public consultation and stakeholder engagement will be tailored for the Project, be meaningful, and will allow for the disclosure of information and public participation in decision-making (in accordance with PR10);
- The Project shall include all reasonable measures to avoid, minimise or mitigate any adverse changes in environmental and social conditions, and impacts on public health and safety, especially with respect to any disproportionate impacts on any group of people as a result of their gender, age, ethnicity, disability, socio-economic status and/or other personal characteristics; and

- It will take into account relevant international conventions and protocols relating to environmental and social issues, as transposed into national legislation.

1.4 DESCRIPTION OF THE PROJECT

The Project is located approximately 60 km north of Almaty, and is orientated in an east/ west direction. The Project mainly follows the alignment of the P-18, an existing two-lane road. The Project will connect the A3 from outskirts of Kapshagai Town and run 67 km to the west to the M-36 on the outskirts of Kurty Village. The location of the Project is shown in **Error! Reference source not found.**, **Error! Reference source not found.** and **Error! Reference source not found.**.

The Project includes:

- The reconstruction and widening of the existing road from two lanes (Kazakh Technical Category 2 Road) to four lanes;
- The reconstruction of a bridge and upgrading of intersections;
- The construction of a new junction outside Kurty Village; and
- Associated infrastructure including: off ramps, cattle and agricultural machinery underpasses, drainage pipes, rest areas, bus stops, zebra crossings, lighting and two maintenance depots.

The Project will be reconstructed to comply with the Kazakh Category 1b highway requirements. The existing road's asphalt pavement is now past its effective working life and its condition is rapidly deteriorating due to a combination of traffic loading and the age of the road surface. Reconstruction of the road is now urgently required to improve the ride quality of the road, minimise road user costs and provide a road surface that can be maintained in a cost-effective manner. In addition, widening of the road will improve road safety as currently the road has a single lane in each direction, so drivers must cross into the oncoming traffic lane to overtake vehicles or avoid potholes.

An overview drawing of the Project is included in **Error! Reference source not found.**.

It is expected that the Project will reduce travelling distances substantially, as the drivers currently use the M36 via Karaoi (125 km) when travelling from the north to Kapshagai Town rather than travelling via Kurty Village on the road to Kapshagai Town. Once the route is reconstructed it is anticipated that they will use this shorter route instead (67 km).

Construction is expected to commence in Q1 / Q2 of 2019 and be completed within 37 - 43 months. The Project will become operational in 2021 / 22.

1.5 STAKEHOLDER ENGAGEMENT

Stakeholder engagement and public hearings are a requirement under the Republic of Kazakhstan (RoK) national legislation. There have been two public meetings relating to this Project as summarised below:

- 3rd December 2015 in the Town Hall of Kurty Village Rural District, Akshi Village. The invitation for the event and additional information on what would be shared at the meeting was publicised in local newspaper Ile tany in Russian and Kazakh on the 13th November 2015. This notice was compliant with the public consultation requirements that require a period of 20 days between the public note and the meeting taking place. The public meetings were attended by residents (22 people in total). This included farmers, the Head of Kurty Village rural district and the Chief Engineer of the Project.
- 15th June 2016 in Kapchagai Town Hall. The meeting was organised by KazAutoZhol and Kapshagai Town Hall. The invitation for the event and additional information on what would be shared at the meeting was publicised in local newspaper Нурлы ОЛКЕ No.25 (382) issued on the 8th June 2016. This short notice was non-compliant with the public consultation requirements that require a period of 20 days between the public note and the meetings. In addition to the newspaper publication, posters with information about public hearings were placed in the post boxes of all residents in the area as well as all the businesses located in Karlygash Village. This meeting was attended by residents', the Engineer of the Project, the Head of Public Transport and Roads Department of Kapshagai Town, the Head of Architecture and Town Construction Department of Kapshagai Town and a KazAutoZhol representative (16 people in total).

In addition to the public meetings, there was a meeting regarding the approval of the Project decisions within the borders of Kapshagai Town as a part of the wider “Centre - South” corridor linking Astana and Almaty. The meeting was held on 2nd June 2016 at Kapshagai Town Hall. The meeting was attended by representatives of KazAutoZhol, Departments of Kapshagai Town; Land Relations Department; the Engineering Centre Astana, and the Scientific-Productional Centre of Land Assets.

During two site visits (April 2018 and July 2018) a representative number of farms and business along the route alignment were visited, those visited included (east to west): Closed Plastic Plant near NS1.8, Operational Asphalt Plant near NS1.8, Closed Landfill Site, Farm S4.06, Farm 11, Farm 9, Farm 33, Farm 21, Farm 22, Farm 5 and Farm 4. The location of the farms and business is depicted in **Error! Reference source not found.** The primary use of the farms is livestock farming (horses, cattle, goats, sheep etc.). The farmers that were met during both site visits, advised that they welcomed the road improvement mainly due to the reduction of travel time to Almaty.

1.6 CONSIDERATION OF ALTERNATIVES

Three alternative design layouts, within the borders of Kapshagai Town, were considered and presented at the meeting on the 2nd June 2016. Following the meeting, the final design, depicted in **Error! Reference source not found.**, was approved.

No Project wide alternatives were considered as there are were substantial obstacles within the vicinity of the site, including farms and undulating land. The use of the existing alignment and adjacent highways land has enables the Project to reduce land take requirements substantially.

1.7 SUMMARY OF ENVIRONMENTAL EFFECTS

1.7.1 AIR QUALITY

Baseline air quality in the vicinity of the Project is considered unlikely to exceed the European Union (EU), World Health Organisation (WHO) and Kazakhstan objectives for nitrogen dioxide (NO₂), the pollutant of most concern, given the rural setting of the majority of the Project.

It considered likely that baseline concentrations of particulate matter measuring less than 10 micrometers in diameter (PM₁₀) and dust will be naturally elevated near the Project due to the arid conditions. However, it considered unlikely that EU, WHO and Kazakhstan objectives will be exceeded.

1.7.1.1 CONSTRUCTION

The construction activities associated with the Project have the potential to generate a large quantity of dust. There are a few residential properties within 50 m of the Project, who have the potential to be affected by increased dust deposition and thus have the potential to experience human health effects during construction. However, with the implementation of good construction site management practices and the implementation of appropriate mitigation measures, adopted through a Dust Management Plan and Construction Environmental Management Plan (CEMP) it considered that the construction air quality effects will not be significant.

1.7.1.2 OPERATION

The traffic related air quality emissions due to the increase in vehicles on the route after it has opened, are not expected to have a significant effect on people living in residential properties within 50 m of the Project. No additional mitigation measures for the operational phase are proposed.

1.7.2 BIODIVERSITY AND LIVING NATURAL RESOURCES

The Project is situated within the Palearctic biogeographic zone; and is most associated with the steppe landscape zone. The Project is situated on the edge of a mountainous region, and has been influenced by human activity, most notably the impacts of agriculture.

The area around the Project is dominated by an open agricultural landscape in which linear features and scrub represent the only notable variation from agricultural land. It is considered likely that species richness across the site is limited and typical of similarly disturbed agricultural areas across the region.

The nearest known nature conservation sites to the Project are the: Altun Emel National Park (approximately 135 km to the east), and Ili River Delta and South Lake Balkhash Ramsar site (approximately 200 km north-east). The Project is not expected to have significant effects on these protected areas, due to the substantial distance to these locations and the nature of the Project.

1.7.2.1 CONSTRUCTION

The construction activities are likely to result in minimal habitat loss to an already, heavily modified site, with minimal natural / semi-natural vegetation present in the form of small pockets of trees and shrubs.

Semi-natural habitats should be avoided through micro-siting. Should this not be possible then a pre-construction check of all mature trees and buildings should be undertaken by a suitably qualified local biodiversity specialist to identify the presence of protected fauna, which will need to be fully considered in terms of a detailed mitigation strategy. This will ensure compliance with both the EU Birds and Habitats Directive (a requirement under EBRD PR6).

Vegetation clearance works will be timed to take place outside of the breeding bird season, to prevent direct impacts to nesting birds.

No significant effects associated with vegetation are expected, although additional survey and assessment will be required to corroborate these findings.

The construction activities are not anticipated to have significant effects on animal welfare, due to the minor risk of injury or death to animals (livestock / wildlife) that access the construction site. This will be reduced by securing and making safe, all open excavations, hazardous materials, and plant machinery should be secured when not in use. The proposed boundary fence will provide further assistance in preventing site access by livestock / wildlife.

1.7.2.2 OPERATION

The operation of the Project has the potential to increase the risk of animal (livestock / wildlife) deaths by virtue of increasing traffic volumes. However, the design of the Project to include a mesh fence and cattle underpasses and given the limited protected / rare species presence in the area, the Project is not expected to result in significant effects on biodiversity.

1.7.3 CLIMATE CHANGE

The assessment considers the impacts and effects of the Project in terms of:

- The contribution of the Project to climate change: the greenhouse gas (GHG) emissions assessment; and
- The vulnerability of the Project to climate change: climate change resilience and adaptation assessment.

1.7.3.1 GREENHOUSE GAS EMISSIONS

GHGs are natural and man-made gases occurring in the atmosphere which absorb and emit infrared radiation thereby maintaining the Sun's energy within the Earth's atmosphere. There is a scientific consensus that the major increase in the concentration of GHGs from man-made sources is contributing to global warming and climate change.

It is unlikely that the Project will produce more than 25,000 tonnes of carbon dioxide equivalent (tCO₂e) from direct emissions per year during operations, and would therefore require emissions quantification as per the EBRD PR3 requirements. However, even though emissions do not need to be quantified due to EBRD PR3 requirements, it is recommended that emissions are quantified in line with the EIA Directive and best practice. It is not possible to assess the significance of effects associated with the Project until emission are quantified.

Potential sources of GHGs during each of the Project lifecycle stages (as per PAS 2080) have been identified and a qualitative assessment of the possible magnitude of emissions has been made.

CONSTRUCTION

None of the potential emissions sources during the construction are expected to be large in magnitude. Medium magnitude emissions during construction are likely to come from:

- Embodied emissions associated with extraction and manufacturing of the required raw materials;
- Emissions from fuel and electricity used in vehicles transporting materials to the site, and away from the site; and
- Emissions from fuel and electricity used in plant and equipment on site.

OPERATION

During operation, end user traffic emissions have the potential to be a large source of emissions. All other sources of emissions during the operation phase are anticipated to be small.

1.7.3.2 CLIMATE CHANGE VULNERABILITY

The assessment of vulnerability of the Project to the impacts of climate change is informed by historic and projected climate for Kazakhstan.

In general, climate change is projected to lead to wetter winters and drier summers, with more extreme rainfall events likely to punctuate these average changes. Climate change is projected to lead to warmer summers and winters, with more extreme temperature events.

The main potential impacts of climate change identified by the assessment are:

- High rainfall leading to flooding and overwhelming of drainage infrastructure;
- High temperatures leading to damage to or more rapid deterioration of materials, including the road pavement /surface, and increased thermal loading on structures;
- High winds leading to increased loads to structures and effects on road users;
- Increase in compaction and soil erosion leading to reduced stability of earthworks; and
- Change in ground water level affecting foundation settlement.

1.7.4 CULTURAL HERITAGE

Previous surveys carried out in accordance with national legislation have indicated that there are no known Cultural Heritage assets within the road corridor. Information collated suggests that there is a low potential for unknown archaeological remains.

1.7.4.1 CONSTRUCTION

In accordance with EBRD Performance Requirement 8, it is recommended that a Chance Find procedure is put into place. A Cultural Heritage Management Plan (CHMP) should be prepared and implemented to mitigate the for potential significant remains during construction. The accidental memorials along the alignment will be relocated further from the alignment in discussion with those affected.

1.7.4.2 OPERATION

No significant cultural heritage effects are foreseen during the operational phase.

1.7.5 MAJOR ACCIDENTS AND DISASTERS

There is the potential for a wide range of major accidents and disasters to occur, however, the probability, likelihood and frequency is very low, often due to the management of a risk under the established legislative requirements, construction and operational contractor processes or during the design process.

'Disaster risk' can be characterised as a hazard which has potential to incur community losses, encompassing assets, life, health and livelihoods, giving significance to disaster events at a personal and local scale. Disaster risk can also be defined as, hazards which could cause a locality to require assistance from an outside state, which could relate to international aid, or a local authority requiring assistance from another local authority. 'Accident' can be defined as, an undesirable event resulting in damage or harm.

Potential major accidents and disasters that may have an impact on the environment or human health largely include but are not restricted to:

- Seismic events: There is a risk that an earthquake could occur in the locality of the Project and that impacts to the Project itself and consequential adverse effects on the environment could occur as a result. However, compared to current road, the Project is not considered likely to increase the vulnerability of the Project to seismic events, as the Project will be designed in accordance with the rules, regulations and standards of the RoK for the design and construction of roads and any appropriate earthquake risk guidelines.
- Extreme weather event (e.g. flooding, heavy snow): The Project design will not increase the vulnerability of the Project to most extreme weather events relative to the current road. The Project will

have a beneficial effect on flood risk associated with snow melt as the Project includes substantial drainage pipes (on average one pipe each 1.5 km of the road). The Project will have a beneficial effect on risks associated with heavy snow as the road will be raised above the existing ground level in more locations, which will reduce the likelihood of snow accumulating on the road surface.

- Major construction accident: The potential for construction related accidents and disasters will be generally mitigated through existing legislation (e.g. the rules, regulations and standards of the RoK for the design and construction of roads) and management procedures around safe working practices. A CEMP will be prepared prior to construction commencing to ensure that such risks are mitigated appropriately.
- Major road accident: The Project design will have a beneficial effect on road safety relative to the current road.

Plans and procedures to prevent and manage potential major accidents and disasters will be documented in the CEMP (for construction) and the Emergency Preparedness and Response Plan (or equivalent, for operational).

1.7.6 GEOLOGY AND SOILS

The area surrounding the route is primarily used for livestock farming. Various potential sources of contamination have been identified along the route including an Asphalt Plant, Plastic Plant, agricultural machinery, waste material (sewage, landfilling, fly tipping) and oil/chemical storage.

1.7.6.1 CONSTRUCTION

The risk from the potential sources of contamination would be mitigated through a ground investigation and risk assessment, together with the adoption of good site practices which will be detailed in the Construction Environmental Management Plan.

1.7.6.2 OPERATION

The nature of the road construction will act as a barrier to potentially contaminated soils underlying the road alignment. The risk from potential ground gas and to buried concrete and structures will need to be addressed through a ground investigation and appropriate design.

1.7.7 LANDSCAPE AND VISUAL

1.7.7.1 CONSTRUCTION

During construction, landscape and visual impacts will occur due to the use of construction machinery, construction works, and importation of materials, which will create increases in noise, dust and activity along the Project, along with traffic management requirements (to maintain access along the route during construction).

During construction the traffic impacts will be reduced through the implementation of a traffic management plan. Traffic will be organised so that the existing road can be utilised to maintain access to adjacent properties and roads throughout construction, including during widening, realignment and the construction of culvert pipes. During the bridge construction, a temporary road bypass will be used to maintain access. Alternative routes for dirt roads while intersections are constructed will be considered. Access to existing monuments will not be blocked, even where they are far enough from the planned road to not be directly affected by the project.

Construction activities have the potential to have significant effects on site vegetation, local landscape character and local visual receptors, although these will be temporary, and will be reduced through mitigation measures in the CEMP.

1.7.7.2 OPERATION

The Project will result in increased traffic volumes along the highway, therefore there is the potential for a greater number of animal collisions and road traffic accidents as well as noise, activity and visual intrusion from raised sections of the road and traffic movement. There will be far fewer available crossing points for animals, being largely restricted to designed underpasses, with the highway being wider (c25m wide) and above existing ground level, making it more visually prominent in the local area. Traffic headlights will also be more visible in the local landscape, along with traffic lights within Kapshagai Town. Realigned sections of the

route will also alter the local landscape character of the immediate area by introducing new hard-surfaced areas into existing undeveloped land.

Operational activities will have adverse effects on local visual receptors, namely isolated properties along the route.

With the exception of local visual receptors surrounding the Project, particularly isolated properties from the limited baseline information available, it is not anticipated that the Project would have significant adverse effects on local landscape character or visual receptors following the implementation of mitigation measures.

1.7.8 MATERIAL RESOURCES AND WASTE

1.7.8.1 CONSTRUCTION

The consumption of materials and generation of waste will occur as part of the Project. During construction materials are likely to comprise asphalt, sub-base materials (aggregate), concrete, steel, timber, bituminous materials, metal and plastics. The quantity and source of the materials as well as details on the recycled content of the materials could not be provided in sufficient detail at this stage to produce a full assessment of the potential impact. However, information from the site visit indicated that materials from the demolition of the existing road would be utilised to reduce the impact on primary material resources, and quarries local to Kapshagai Town would be utilised to source some construction materials. Further studies would be required to provide additional material type, quantity and source information as further information on the availability of these resources at a local, regional and national scale.

Some information on the quantities of earthwork removal was available, however quantities for wastes such as broken out concrete, road planning, bituminous materials, contaminated land or vegetation were not available. A commitment to divert waste from landfill through recycling was made during consultations during the site visit, with non-diverted waste taken to a local licenced landfill. Due to the limited amount of information currently available on the anticipated waste arisings, and absence of data on the capacity of landfills at a local, regional and national level, a further study is required to assess the significance of effects associated with the Project.

1.7.8.2 OPERATION

The Project is anticipated to consume minimal quantities of materials and generate minimal volumes of waste during operation. Maintenance activities are considered likely to consume small quantities of specialist components (for example signage and lighting) as well as some bulk products (asphalt), and generate small volumes of associated waste. Any materials required will impact on the consumption of natural resources resulting in the depletion of natural resources and local / regional stocks, resulting in an adverse, permanent and direct impact on the consumption of construction materials. Despite the limited information currently available, professional judgement indicates that the effects are likely to be not significant, however further information on the likely operational / maintenance activities would need to be obtained to verify this precisely.

Where wastes are not recovered, the impact on landfill capacity would be adverse, permanent and direct. Based on the limited information currently available, and using professional judgement, it is considered likely that the operational waste effects will not be significant. However, further information on operational waste generation and the capacity of waste recovery and landfill sites within the region would need to be obtained to make a full assessment.

1.7.9 NOISE AND VIBRATION

1.7.9.1 CONSTRUCTION

Temporary noise and vibration effects are defined as those that occur between the start of advance works and the end of the construction period. Where materials need to be transported to or from the site, the effects of the additional traffic along access routes are likely to extend beyond the immediate construction corridor.

At this early stage, very little is known about the number, type and location of construction plant that might be used. Nevertheless, based on the activities and processes likely to be employed during the highway improvements along with the possibility of night-time working, it is inevitable that some disturbance to those living nearby would arise. However, the sparse nature of the area through which the Project passes (and particularly the separation distance between the road corridor and the nearest noise sensitive receptors) as well as the temporary nature of the works, means that the potential for disturbance is likely to be limited.

The noise and vibration effects arising during construction can be mitigated to an extent through contractual means. It will also be important to manage and control noise and vibration throughout the construction period, a mitigation strategy will be developed and formalised within a Construction Environmental Management Plan (CEMP) developed by the Contractor.

Through the preparation of a CEMP and the adoption of a considerate approach throughout the construction phase, for example, adhering to construction working hours, keeping residents informed of progress and particularly noisy activities and ensuring that best practicable means are adopted at all times to minimise noise and vibration levels, it is anticipated that all construction related activities can be undertaken whilst minimising disturbance to residents. With the implementation of mitigation measures it considered likely that the effects will not be significant.

1.7.9.2 OPERATION

In this situation, the key factors that contribute to the change in road traffic noise level at sensitive receptors along the route include the volume of traffic, vehicle speed and proportion of heavy duty vehicles, all of which combine to influence the level of traffic noise at source, and the alignment of the road, which affects the propagation of noise between road and sensitive receptor.

Traffic information is limited at this stage, but based solely on the number of additional traffic movements, the likely change in source noise level between 2021 (the year of opening) and 2036 is anticipated to be just over 3 dB. This long-term change would be described as an adverse impact of minor magnitude and it is also above the International Finance Corporation (IFC) change threshold of +3 dB.

Further road traffic calculations indicate that most dwellings located in excess of 200 metres from the road would have LAeq,1h levels below IFC thresholds (55 dB during the day and 45 dB at night), even in 2036. However, for properties closer to the road (for example, those within 100 metres, as present at each end of the Project in 2036) noise levels are predicted to exceed the IFC thresholds.

Based on the above it can be concluded that there is some potential for adverse impacts of minor magnitude, particularly at dwellings at each end of the Project. Consequently, to minimise these impacts, consideration should be given to introducing acoustic barriers, most likely in the form of reprofiled earthworks to create an earth bund, to screen the road from the nearest dwellings.

1.7.10 WATER ENVIRONMENT

The Project crosses several seasonal streams, that are reported to be dry for much of the year, but that convey flow resulting from snow melt and during heavy rainfall events. The Project also crosses a surface water channel that is reported to convey treated wastewater.

Approximately 60 drainage pipes pass beneath the Project along its length. These are to allow the flow of rainfall, snow melt and floodwaters from one side of the Project to the other. The existing road is sheds runoff to adjacent ground, with no prior attenuation or treatment of runoff.

The Kurty River flows immediately to the west of the proposed P-18 and M-36 road junction. The Kapshagai Town Reservoir is located approximately 2 km to the east of the proposed P-18 and A-3 road junction. The Kapshagai Town Reservoir is the second largest lake in Kazakhstan. It feeds the Kapshagai Hydroelectric Power Plant and supports essential water supplies in the region. Groundwater is not considered to be a prominent source of water supply within the region, as none of the farmers consulted had access to groundwater, and one advised that he had received a grant to drill for groundwater, but that the drilling had been unsuccessful.

1.7.10.1 CONSTRUCTION

Due to the proximity of the works to the Kurty River, seasonal streams and groundwater resources there may be a slight adverse impact to these features during construction. However, the impacts are likely to be temporary and pose no long-term risk, assuming good proactive working methods are implemented and all necessary permits are obtained.

It is estimated that approximately 464,857 m³ of water per year will be required during the three-year construction programme. No known detailed water balance calculations have been undertaken, but it is understood that the required water supplies (potable and non-potable) have been approved by the Water Basin Inspection Authority (Balkhash-Alakol) and the applicable local authorities. It is considered unlikely that the abstraction of water for construction would have a notable impact on environmental water quality, although

it is recommended that a more detailed water balance assessment is undertaken prior to construction. The CEMP will specify that no groundwater or surface water sources along the alignment of the Project are used as this could affect local livelihoods as livestock regularly use the water channel for drinking.

Overall the construction works may increase local flood risk associated with works to the existing seasonal streams and drainage channels, but this is unlikely to be significant if the existing drainage pipes are maintained.

1.7.10.2 OPERATION

The Project will increase traffic flow which in turn could increase pollution risk and spillage risk to adjacent surface water and groundwater features. It is assumed that the current drainage regime will be maintained, although the Project may offer an opportunity to improve the quality of surface water discharge through the provision of improved drainage and treatment systems. The impact is likely to be limited to seasonal streams and the water channel.

The Project may also increase the rate and volume of surface water runoff that may subsequently increase local flood risk to users of the road and elsewhere, although inclusion of improved drainage and attenuation systems may offer an opportunity to better control runoff.

1.7.11 SOCIAL

The land required for the road rehabilitation will be State reserved land (159 ha), land acquired from the state enterprises (176 ha) and land acquired from private and commercial land owners and tenants (200 ha). The land is mainly required for the five sections where realignment is required and the Kurty Village junction, but also along the road for accommodation of higher embankments to provide the requirements for the road category vertical visibility. The compensation process is being progressed by the department of land management at Ili district and Kapshagai Town municipality. The compensation will be undertaken in accordance with EBRD PR5. The Project includes plans to temporarily rent land to build two construction camps; one is expected to be in Kapshagai Town; and another near to Kurty Village. The size and capacity of the camps are not known, but it is not expected that there will be a major influx of workers.

The households, individuals and areas along the Kapshagai Town-Kurty Village route mainly fall within the following categories:

- Farmers mainly involved in husbandry and cattle breeding (i.e. mostly pasture lands);
- No agricultural lands were identified close to the road; some agricultural lands were present further outside the road boundary;
- Businesses, including one café close to Kurty Village junction, one asphalt making plant, and an anonymous enterprise; and
- No indigenous peoples were identified during the WSP site visit in July 2018.

1.7.11.1 CONSTRUCTION

The permanent and temporary land acquisition for the Project is not expected to cause an adverse impact on local income and livelihood. It is expected that only small part of each land parcel will be affected and as a result affected land users/owners will not lose access to the remaining land. The majority of lands are categorised as 'Pasture' which are used for herding and animal husbandry activities. Key potential impacts associated with land acquisition and use are:

- Permanent land loss resulting in reduced herding area for cattle;
- Temporary loss of access rights, resulting from temporary land use i.e. construction corridor, camps and potential new quarries; and
- Reduced temporary income for businesses and individuals if access is blocked to businesses or farms.

Further details with regard to land acquisition is available in Livelihood Restoration Framework (LRF). The Project will implement Livelihood Restoration Plan (LRP) prior to land acquisition and subsequent to agreement with the EBRD to ensure that all affected land owners and users (formal and informal) are compensated and supported in accordance with PR5.

The construction activities including groundwork, blasting, material crushing and vehicle movements will potentially cause some disturbance to locals. Key potential impacts associated with construction activities are:

- Noise disturbance to locals particularly living close to the construction corridor;
- Road accidents resulting from increased local traffic; and
- Reduced air quality and minor impact on community health (dust associated with ground work).

The availability of temporary construction employment opportunities is sometimes associated with an increase in vulnerability and susceptibility of local communities to increased crime, alcoholism, etc. There is a potential impact associated with conflicts between workers and locals, and some women may feel discomfort, particularly in Kapshagai Town and Kurty Village where camps will be built. There is a risk associated with influx of workers into the Project area, however, it is not expected that there will be a large construction workforce, and hence the impact associated with limited influx is not considered as significant. However, if the construction workforce is not managed, the Project could lead to issues associated with child labour, forced labour, poor working condition and labour grievances within its organisation and associated supply chain. Key mitigation measures in relation to compliance with EBRD PR2 will be implemented to minimise these risks.

Most of unskilled and skilled labour jobs are expected to be undertaken by men. However, there will be opportunities for local women to obtain jobs in catering, accommodation camps, service industry and administration. There will be also opportunities for women experts from Almaty to conduct technical work in planning, designing and mapping the Project.

Vulnerable people are categorised as the 31 land users (including State land users) who may not receive any compensation entitlements, due to the existing national compensation procedures in Kazakhstan. In addition, women (who due to traditional limiting factors may not be able to attend consultations and cannot claim compensation), elderly, the disabled and individuals with chronic health condition or poor socio-economic status/background will be sensitive to the Project impacts and are classed as 'Vulnerable Groups'.

If not managed, the impact of the Project construction and land acquisition on vulnerable people (including land users) could potentially be significant. The Project will implement a LRP and will consult with vulnerable people to ensure their needs and concerns are taken into account during the course of the Project, to avoid the potential impact on vulnerable people.

1.7.11.2 OPERATION

The new road would potentially bring new investments into the area, and could also lead to increased land prices. The new road will reduce travel times from Europe to China, and enable road users to bypass Almaty and Kaskelen (30 km from Almaty). Therefore, the new road will be the main route for inter-regional trips and increased number of road users would potentially bring additional income for local businesses and farmers. As part of this project, local communities will obtain some social benefits including:

- Lighting will be provided at junctions;
- Bus stops and resting areas with benches will be built along the new road;
- The new road will provide a shorter route and thus faster trips to other regions; and
- Further local investments could be attracted to the area through opening new shops, restaurants, petrol stations, etc.

There will be some long-term opportunities for local women to obtain jobs, training and internship programmes once the new road is operational, due to the improvement in accessibility to other areas. However, such opportunities are expected to be limited.

The Project operational impacts are minimal, and social benefits (including employment, infrastructure improvements) are expected.

1.8 CUMULATIVE ASSESSMENT

Cumulative effect interactions can occur as either:

- Interactions between effects associated with the Project; and / or

- Interactions between the effects associated with one or more other developments within the study area for the Project.

Cumulative effect interactions during construction and operation these have been identified as have the potential for adverse effects. The effects are summarised in Table 1.

Table 1 - Summary of Cumulative Effects

Nature of Cumulative Effects	Temporal Stage	Environmental Discipline	Summary of Effects
Interactions between effects associated with the Project.	Construction and Operation	<ul style="list-style-type: none"> • Air Quality; • Noise and Vibration; • Traffic and Transport; • Landscape and Visual; and • Social. 	<ul style="list-style-type: none"> • Nuisance and disturbance to local business and farms caused by noise, dust, visual impacts and increased traffic movements during both the construction and operational phases; and • Potential for business and farms to have views of the construction activities and the operational road; and • Potential for business and farms to experience dust and windblown litter during both the construction and operational phases.
Interactions between the Project and other projects within proximity of the Project.	Construction and Operation	<ul style="list-style-type: none"> • Air quality; • Noise and vibration; • Landscape and visual; • Biodiversity and living natural resources; • Geology and Soils; • Water environment; and • Material resources and waste. 	<p>There are two roads which connect to the Project. The A3 on the outskirts of Kapshagai Town has been redeveloped and is already operational. As this redevelopment was completed prior to the commencement of this Project it has formed part of the baseline environment for the assessments, and thus a cumulative assessment is not required.</p> <p>The M-36 on the outskirts of Kurty Village is part of the 228 km “Kurty-Buribaytal” Project, the adjacent stretch of this Project currently being disbursed by EBRD, it is expected to be completed in late 2019 / early 2020. Thus, there is the potential for inter-Project cumulative effects.</p>

1.9 FURTHER INFORMATION AND CONTACTS DETAILS

Documents associated with the Project, inclusive of this Supplementary ESIA Report can be requested from:

- Ministry of Investment and Development of Kazakhstan;
- JSC “NC “KazAutoZhol”; and
- EBRD.

Electronic versions of these documents will be available for a minimum of 120 days (the public disclosure period) and also the following websites:

- Ministry of Investment and Development of Kazakhstan: <http://mid.gov.kz>;

- JSC “NC “KazAutoZhol”: www.kazautozhol.kz; and
- EBRD website: <http://www.ebrd.com>.

The contact details for the relevant person at JSC “NC “KazAutoZhol”, the organisation responsible for the implementation of the Project are provided in Table 2.

Table 2 - JSC “NC “KazAutoZhol”

Contact Information

Contact Information	
Name	Aliya Zeinullina
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