

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA)

SISIAN-KAJARAN (NORTH-SOUTH CORRIDOR) ROAD PROJECT, ARMENIA

Volume 7. Conclusions And Recommendations



Source: projections of the proposed road collated from the '3D description of the Sisian-Kajaran Road', Armenian Road Department, 2022 [https://www.youtube.com/watch?v=fu-dgAwjSsU]



ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) SISIAN-KAJARAN (NORTH-SOUTH CORRIDOR) ROAD PROJECT, ARMENIA

Volume 7. Conclusions and Recommendations

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The "Road Department" Fund under the Ministry of Territorial Administration and Infrastructure of the Republic of Armenia



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DISCLAIMER

The current document summarises the findings of the Environmental and Social Impact Assessment (ESIA) completed for the Sisian-Kajaran Road Project, Armenia and provides recommendations on prevention and mitigation of the identified E&S impacts and enhancement of the expected benefits. An ESIA is necessarily predictive in that it gets completed well before the project being assessed is actually implemented. The information on which the assessment is based comes from multiple sources including the feasibility report, the detailed design document, reports on studies that were conducted as part of the feasibility investigations, records of meetings, other publications, various databases, data that is collected by the team conducting the ESIA, anecdotal information and others. It is extremely difficult to verify the information that is used other than through testing the logic of that information as well as that can be done. In preparing this document, care has been taken to ensure that whatever information has been available has been accurately reproduced in the ESIA. Should information be found in this document that is incorrect then it is respectively requested that the incorrect information be brought to our attention so that the ESIA can be updated accordingly. We cannot be held accountable for information that we have accepted and reproduced in good faith regardless of the consequences of such information being incorrect. Anyone reproducing information contained in this ESIA does so entirely at their own risk.

LIST OF ABBREVIATIONS

| ADB | Asian Development Bank |
|--------|--|
| BAP | Biodiversity Action Plan |
| E&S | Environmental and social |
| EBRD | European Bank for Reconstruction and Development |
| EIB | European Investment Bank |
| ESAP | Environmental and Social Action Plan |
| ESIA | Environmental and Social Impact Assessment |
| ESMP | Environmental and Social Management Plan |
| EU | European Union |
| ICOMOS | International Council on Monuments and Sites |
| ha | hectare |
| IBA | Important Bird Area |
| KBA | Key Biodiversity Area |
| MoE | Ministry of Environment of Armenia |
| NSRC | North-South Road Corridor |
| NTS | Non-Technical Summary |
| RD | Road Department Fund |
| RF | Resettlement Framework |
| SEP | Stakeholder Engagement Plan |
| WWF | World Wildlife Fund |
| | |







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PREAMBULE

This document is the 'Conclusions and Recommendations' document for the proposed greenfield Armenian Sisian-Kajaran road section (the Project) of the North-South Road Corridor (NSRC). It forms **Volume 7** of the Environmental and Social Impact Assessment Report (ESIA) for the Project.

The ESIA Report consists of seven volumes with related annexes, as follows:

- Volume 1 Project Definition including Project introduction, context and rationale, project description, alternatives, legal framework, and ESIA methodology;
- Volume 2 Biodiversity including baseline analysis, risk / impact assessment and mitigation (including Critical Habitat Assessment and Appropriate Assessment);
- Volume 3 Physical Environment including baseline analysis, risk / impact assessment and mitigation in relation to air quality and climate, noise and vibration, landscape, etc.
- Volume 4 Social Environment including socio-economic, gender and cultural heritage baseline analysis, risk / impact assessment and mitigation, as well as stakeholder engagement;
- Volume 5 Cumulative Impact Assessment;
- Volume 6 Environmental and Social Management Plan (ESMP); and
- Volume 7 Conclusions and Recommendations

The ESIA was publicly disclosed for the period of over 120 days according to the international lenders' requirements (from 21 July to 1 December 2023). In addition to the ESIA report, the ESIA disclosure package includes:

- Non-technical Summary (NTS) which is a concise and over-arching document summarising the results of the ESIA in non-technical language;
- Stakeholder Engagement Plan (SEP) that guides information disclosure and meaningful engagement with Project stakeholders, as well as a grievance mechanism;
- Resettlement Framework (RF) that guides issues related to Project-induced physical and economic displacement, land acquisition, compensations, and livelihood restoration;
- Biodiversity Action Plan (BAP) that articulates actions that can help ensure the conservation or enhancement of potentially affected habitats and species considered of particular conservation value; and
- Environmental and Social Action Plan (ESAP) that contains actions required to implement the Project in compliance with the international lenders' requirements.

Following the public disclosure, the ESIA Disclosure and Consultation Report was prepared to document and summarise the feedback from stakeholders received and engagement activities completed during the ESIA disclosure period.

The current version of the ESIA package captures the feedback from stakeholders collected during the ESIA disclosure and it will be re-disclosed, together with the ESIA Disclosure and Consultation Report, for the Project life-cycle.







1 INTRODUCTION

This volume summarises the works that have been conducted during the ESIA and presents the key ESIA findings in terms of the Project's environmental and social (E&S) impacts / risks and benefits, monitoring and management approach, and stakeholder engagement.

2 DATA COLLECTION METHODS AND SUMMARY OF CONDUCTED STUDIES

To inform the preparation of the Project description, the ESIA team reviewed the available design documents and environmental impact assessment materials provided by the Road Department Fund (the RD) and held numerous consultations with the responsible RD's staff, Technical Consultant (Bernard Gruppe), and the representatives of Project Lenders. Reports of the Technical Consultant in relation to review of the detailed design and climate adaptation were valuable sources of information.

The methodology for collecting and analysing the environmental, biodiversity, socio-economic, gender and cultural heritage baseline was a combination of a) an extensive desktop review of archived and open-source data (e.g. state statistical data, environmental monitoring data, archaeological study reports, biodiversity research publications) and b) field observations, surveys and measurements, as well as interviews and discussions with local residents, and consultations with representatives of competent authorities, local, municipal and regional administrations, and operators of public utilities. Both primary and secondary data were used within the impact assessment. A summary of the field studies undertaken to gather E&S baseline information for the ESIA is provided below. Each engagement with the stakeholders during the ESIA was preceded by provision of information about the Project and purpose of the study / meeting.

Environmental baseline studies and surveys (for details refer to Volume 3)

To collect data about the baseline conditions of physical environment within the Project area of influence, air, water, and soil sampling and measurements of noise and vibration levels were carried out at 26 locations within the proposed road route and at 8 locations along the existing roads Sisian-Shenatagh and Qirs-Kajaran. Sampling/measurement points were located near selected sensitive receptors (residential houses, hospitals, schools, churches, shops, etc.).

Biodiversity field studies (for details refer to Volume 2)

The biodiversity field studies included surveys for different biodiversity streams: flora and habitats, terrestrial mammals and bats, birds, reptiles and amphibians, fishes, and butterflies, completed within wider areas along the construction sites. The fieldwork was undertaken during four seasons in 2021 and 2022, for 16-17 days per season, to cover the variety of ecological cycles of different target species (breeding, wintering, migration). Data collection methods included *inter alia* camera-trapping in key locations determined together with the representatives of the Zangezur Sanctuary and WWF Armenia. The camera traps were left onsite for several seasons and represent in total 1,089 camera-trap days.

In addition, over 20 focused individual and group consultations were held with biodiversity experts, representatives of the Ministry of Environment (MoE) and staff of protected areas, and NGOs.

Socio-economic surveys and field studies (for details refer to Volume 4, Annex 1)

Social experts deployed qualitative data collection methods (interviews, focus groups and consultations, observational walks, and photo-fixation) that allowed to collect both qualitative and quantitative information. The study programme covered:







- Inception site visits in April 2021 and December 2021 including interviews and/or consultations with 35 key informants from regional, municipal (community) and local administrations;
- Large-scale field studies in the Project-affected villages and communities in May-June 2022, which included 122 in-depth interviews, 7 focus groups and 5 consultations engaging 180 people (of whom 80 were females);
- Additional consultations with the local authorities in July September 2022 to crosscheck the collected information, receive an update on the ongoing and planned developments in Sisian and Kajaran Communities, and test some impact assessment assumptions.

Later in 2022, a household survey was conducted in parallel with the census and inventory studies to collect information for the Project's Resettlement Plan.

Cultural heritage surveys and field studies

Data on tangible cultural heritage were gathered during a systematic field survey within 500 m on both sides of the proposed road. The fieldwork methods included recording, photo-fixation and mapping of the archaeological sites / items and context and collection of surface finds. Drones were used at certain locations that were not accessible during the field survey.

In terms of intangible cultural heritage, sites or locations that are considered "sacred" for the local residents, and sites associated with the local festivals, celebrations, culturally important events or traditions were identified during site visits/tours along the existing roads of the region, and interviews/consultations at the level of affected villages.

Consultations with the representatives of the Ministry of Education, Science, Culture and Sport, ICOMOS-Armenia¹, and Sisian History Museum and local residents - carriers of the cultural heritage information underpinned the baseline analysis and impact assessment.

Cumulative Impact Assessment

The Cumulative Impact Assessment has required an additional effort to collect information on the past, present, and future activities in the Project region that may interact with the Project. These data were gathered via a desktop review of the publicly available Environmental Impact Assessment database of the MoE and consultations with the heads of Project-affected administrative units, and developers of some of the identified concurrent activities.

3 APPROACH TO IMPACT ANALYSIS, MITIGATION AND MANAGEMENT

The methodology for assessing the significance of impacts is provided in **Section 5.5 of ESIA Volume 1**. Impact significance is determined as a function of a receptor's sensitivity to the Project's pressure (impact) and the impact magnitude (extent of change to the natural or social environment), which is determined by its spatial extent, potential to occur, duration, and reversibility of expected changes. Assigning impact significance relies on reasoned argument, thresholds (where available), professional judgement and consideration of views of stakeholders (where provided). The key significance categories used within the ESIA are major, moderate, minor, and negligible; significance grades were determined for both positive impacts and negative impacts.

Wherever the Project is likely to result in unacceptable negative environmental and/or social impacts, mitigation measures are proposed to avoid or limit these impacts. For positive

¹ Armenian National Committee of The International Council on Monuments and Sites, and NGO.







impacts, additional measures are also suggested to enhance the benefits or make them more sustainable. Where mitigation measures have been predicted to be required, the significance of the impact is rated before and after the proposed mitigation to indicate the residual impact significance after implementation. The mitigation and enhancement measures are brought together into an Environmental and Social Management Plan (ESMP) for the Project, and the appointed Contractor will further develop specific and thematic construction Management Plans based on the ESMP to effectively manage construction risks and impacts. In addition, as some components of the Project such as spoil disposal areas, construction camps, laydown sites, and power and water supply have not yet been fully defined additional actions have been included in the Project's ESAP for the Project to achieve full compliance with Lenders' requirements.

4 SUMMARY OF THE POTENTIAL PROJECT'S E&S IMPACTS / RISKS

A summary of E&S risks and impacts and their significance ratings prior to and after mitigation or enhancement measures (i.e., 'residual') are provided below, followed by a summary of cumulative² impacts.

Table 1. Negative Impact Significance Ratings

| Impact Receptor Sensitivity / Value | | | | |
|-------------------------------------|----------|----------|------------|------------|
| Magnitude | High | Medium | Low | Very Low |
| High | Major | Major | Moderate | Minor |
| Medium | Major | Moderate | Minor | Minor |
| Low | Moderate | Moderate | Minor | Negligible |
| Negligible | Moderate | Minor | Negligible | Negligible |

Table 2. Positive Impact Significance Ratings

| Impact | Receptor Sens | sitivity / Value | | |
|------------|---------------|------------------|------------|------------|
| Magnitude | High | Medium | Low | Very Low |
| High | Major | Major | Moderate | Minor |
| Medium | Major | Moderate | Minor | Minor |
| Low | Moderate | Moderate | Minor | Negligible |
| Negligible | Moderate | Minor | Negligible | Negligible |

Table 3. Summary of Impact Assessment for Construction and Operations³

| Topic | Potential Impact | Significance Rating (before mitigation /enhancement) | Residual Significance Rating (after mitigation / enhancement) | | |
|-----------------|---|--|---|--|--|
| Physical Enviro | Physical Environment Impacts (Construction Phase) | | | | |
| Air Quality | Dust emissions | Negative Moderate | Negative Minor | | |
| | GHG emissions | Negative Minor | Negative Minor (to be confirmed) ⁴ | | |

⁴ As of summer 2023, an additional traffic study is ongoing.







² Cumulative impacts are E&S impacts that are the result of activities for implementation of the respective project in combination with other similar past, present or future activities within the observed area. Cumulative impacts are assigned with the same significance grades (major, moderate, minor, and negligible) as the Project's impacts/risks.

³ Where there are multiple ratings for different impact extents or receptors, the colour for the highest significance rating is used (unless indicated otherwise).

| Topic | Potential Impact | Significance Rating (before mitigation /enhancement) | Residual Significance Rating (after mitigation / enhancement) |
|------------------------------------|---|--|---|
| Noise & Vibration | Noise nuisance to local communities | Negative Major | Negative Moderate |
| | Vibration impacts to cultural heritage structures | Negative Major | Negative Minor |
| Surface Water Resources | Impact on the hydrological regime of surface water courses | Negative Moderate | Negative Negligible |
| | Impact on water quality due to intensification of soil erosion, onset of dust and exhaust emissions, and spillages/spills of hazardous materials and tunnel wastewater discharges | Negative Moderate | Negative Negligible |
| Groundwater Resources | Impacts on groundwater quality due to the spillages/spills of hazardous materials | Negative Moderate | Negative Moderate to Minor |
| Waste | Impacts on biodiversity, water resources and soil from the disposal of excess spoil | Negative Moderate | Negative Minor |
| | Impacts on biodiversity, soil, and water quality from the disposal of domestic waste | Negative Minor | Negative Minor |
| Physical Enviro | onment Impacts (Operation Phase) | | |
| Air Quality | Impact of NO ₂ emissions | Negative Moderate | Negative Minor |
| | GHG Emissions | Negative Moderate | Negative Moderate (to be confirmed) ⁵ |
| Noise & Vibration | Noise nuisance to local communities | Negative Major | Negative Moderate |
| Geohazards | Impact of geohazards on the road and road users | Negative Major | Negative Minor |
| Surface Water Resources | Impacts on water quality due to contaminated surface run-off and waste | Negative Minor | Negative Negligible |
| Groundwater Resources | Impacts on groundwater quality due to spillages/spills of hazardous materials | Negative Moderate | Negative Minor |
| Waste | Impacts from waste on biodiversity, water quality and soil quality. | Negative Minor | Negative Negligible |
| Landscape and Visual Amenity | Permanent changes in the landscape and context of cultural heritage resources | Negative Moderate | Negative Moderate |

 $^{^{\}rm 5}$ As of summer 2023, an additional traffic study is ongoing.







| Topic | Potential Impact | Significance Rating (before mitigation /enhancement) | Residual Significance Rating (after mitigation / enhancement) |
|--|--|--|---|
| | Permanent changes to the Vorotnavank viewshed | Negative Major | Negative Moderate |
| Biodiversity Im | pacts (Construction Phase) | | |
| Biodiversity | Impacts on priority biodiversity features and species and habitats triggering critical habitat | Negative Major | Negative Moderate After offset – no net loss / a net gain |
| | Impacts on National protected areas, Emerald Network Sites, and important/key biodiversity areas | Negative Major | Negative Minor |
| Biodiversity Im | pacts (Operation Phase) | | |
| Biodiversity | Impacts on priority biodiversity features and species and habitats triggering critical habitat | Negative Major | Negative Minor After offset – no net loss / a net gain |
| | Impacts on ecosystem services | Negative Minor to Moderate | Negative Minor to Moderate |
| | Impacts on National protected areas, Emerald Network Sites, and IBAs/KBAs | Negative Moderate | Negative Minor |
| Social Impacts | (Construction Phase) | | |
| Economy | Impacts on the Project related procurement of goods and services | Positive Moderate (Municipal Level) | Positive Major (Municipal Level) |
| | | Positive Minor (Regional Level) | Positive Moderate (Regional Level) |
| | | Positive Negligible (National Level) | Positive Minor (National Level) |
| | Impact on Project related tax and other payments to the national and municipality budgets | Positive Negligible (National Level) | Positive Negligible (National Level) |
| | and municipality budgets | Positive Minor (Municipal Level) | Positive Moderate (Municipal Level) |
| Employment and Labour Markets | Impact of Project related job creation on employment and labour markets | Positive Negligible (National Level) | Positive Negligible (National Level) |
| iviairets | laboul markets | Positive Minor (Regional Level) | Positive Minor (Regional Level) |
| | | Positive Moderate (Municipal and Local Levels) | Positive Major (Municipal and Local Levels) |
| Land, land- based livelihoods and use of natural resources | Permanent and temporary acquisition of agricultural land. | Negative Major | Negative Minor to Moderate |
| Land, land- based | Restricted access to natural resources | Negative negligible | Negative negligible |







| Topic | Potential Impact | Significance Rating (before mitigation /enhancement) | Residual Significance Rating (after mitigation / enhancement) |
|--|---|--|---|
| livelihoods and use of natural resources | | | |
| Public Utilities, Services and | Impact of construction workforce on local medical facilities | Negative Moderate | Negative Minor |
| Transport Infrastructure | Impact of Project traffic on existing road infrastructure | Negative Moderate | Negative Negligible |
| | Impacts on local power supplies and waste management facilities | Negative Minor | Negative Negligible |
| | Impacts on infrastructure facilities crossed by new roads | Negative Moderate | Negative Negligible |
| | Impacts on social infrastructure along the project alignment, access roads and roads used by Project traffic | Negative Moderate | Negative Minor to Negligible |
| Public Health, Safety and | Traffic accidents involving Project associated vehicles | Negative Moderate | Negative Minor |
| Security | Impacts on the health of residents living adjacent to roads used by | Negative Minor (non- sensitive receptors) | Negative Minor |
| | Project associated vehicles due to increased noise and dust | Negative Moderate (sensitive receptors) | |
| | Increase in infectious diseases in local communities due to an influx of Project workers | Negative Moderate | Negative Minor |
| | Impacts of Project security provisions | Negative Minor | Negative Negligible |
| Occupational Health and Safety | Emergency situations (e.g. fires, spills of hazardous materials, medical emergencies, adverse weather events, seismic events) | Negative Moderate | Negative Minor |
| | Vehicle collisions, e.g. on construction sites, during the delivery of construction materials/workers to site, or at accommodation camps. | Negative Moderate | Negative Minor |
| | Health risks of workers exposure to high noise levels | Negative Moderate | Negative Minor |
| | Risks to workers from performing high hazardous tasks | Negative Moderate | Negative Minor |
| | Risks of electrical injuries to workers | Negative Moderate | Negative Minor |
| | Risks to workers from exposure to high levels of air pollution | Negative Major | Negative Minor |
| | Risks to migrant workers from changes in climate and terrain (e.g., high altitudes) | Negative Minor | Negative Negligible |







| Topic | Potential Impact | Significance Rating (before mitigation /enhancement) | Residual Significance Rating (after mitigation / enhancement) |
|--|---|---|---|
| | Increase in infectious diseases amongst the workforce due to an influx of workers from other locations. | Negative Moderate | Negative Minor |
| Gender | Employment opportunities for women | Positive Minor (Local and Municipal Levels) | Positive Minor to Moderate (Local and Municipal Levels) |
| | | Positive Negligible (Regional Level) | Positive Negligible (Regional Level) |
| | Entrepreneurship opportunities for women | Positive Minor | Positive Minor (and potentially change to Moderate in the mediumterm) |
| | Increased in gender-based violence and harassment | Negative Minor | Negative Minor to Negligible |
| Tangible Cultural Heritage | Destruction of or damage to cultural heritage resources | Negative Minor – Major (depending on CH sensitivity values and magnitude of impacts) | Negative Minor |
| Social Impacts | (Operations Phase) | | |
| Economy | Impacts on economic development in the region and at the municipal level | Positive Minor (Regional Level) | Positive Minor (Regional Level) |
| | | Positive Moderate (Municipal Level) | Positive Moderate (Municipal Level) |
| | Impact of Project-related procurement of goods and services on respective goods/services markets Impact on Project related tax and other payments to the national and municipality budgets | Positive Negligible (Regional Level) | Positive Negligible (Regional Level) |
| | | Positive Minor (Municipal Level) | Positive Minor (Municipal Level) |
| | | Positive Negligible (National Level) | Positive Negligible (National Level) |
| | and municipality budgets | Positive Minor (Municipal Level) | Positive Minor (Municipal Level) |
| Employment and Labour Markets | Impact of Project related job creation on employment and labour markets | Negligible (National and Regional Levels) | Negligible (National and Regional Levels) |
| iviaikets | labout markets | Moderate (Municipal and Local Levels) | Moderate (Municipal and Local Levels) |
| Public Utilities, Services and Transport | Impacts on existing road infrastructure | Positive Minor (Regional Level) | Positive Minor (Regional Level) |
| Infrastructure | | Positive Moderate (Municipal Level) | Positive Moderate (Municipal Level) |
| | | Positive Major (Local Level) | Positive Major (Local Level) |
| | Impacts on local power supplies and waste management facilities | Negative Negligible | Negative Negligible |







| Topic | Potential Impact | Significance Rating (before mitigation /enhancement) | Residual Significance Rating (after mitigation / enhancement) |
|--------------------------------------|--|--|---|
| | Impacts on local social infrastructure | Negative Negligible | Negative Negligible |
| Public Health, | Impacts on road safety | Positive Moderate | Positive Moderate |
| Safety and Security | Risk of traffic accidents involving residents of settlements within the Project Area of Influence | Negative Moderate | Negative Minor |
| | Emergency situations (due to physical road failure, vehicle breakdowns or unsafe behaviour of road users) | Negative Moderate | Negative Minor |
| Occupational Health and Safety | Emergency situations (caused by caused by adverse weather events/geohazards or unsafe workers' behaviour) | Negative Moderate | Negative Minor |
| | Risks of traffic accidents (e.g., due to the organisation of maintenance works or poor driver behaviour) | Negative Moderate | Negative Minor |
| Gender | Employment opportunities for women | Positive Negligible (Regional Level) | Positive Negligible (Regional Level) |
| | | Positive Minor (Municipal and Local Levels) | Positive Moderate (Municipal and Local Levels) |
| | | Positive Moderate (women from vulnerable households) | Positive Moderate (women from vulnerable households) |
| | Entrepreneurship opportunities for women | Positive Minor | Positive Minor |
| Tangible Cultural Heritage | Damage to cultural heritage resources during maintenance works or from operational traffic induced vibration | Negative Minor to Moderate (depending on CH sensitivity values and magnitude of impacts) | Negative Negligible |
| Intangible Cultural Heritage | Revival of traditions, practices, and rituals due to improved accessibility to the region. | Positive Minor (short-term) to Moderate (long term) | Positive Minor (short-term) to Moderate (long term) |

Table 4. Summary of Cumulative Impact Assessment⁶

| Topic | Cumulative Impact | Significance Rating(s) |
|-----------------------------|---|------------------------------------|
| Public Health and Safety | Risks to public health due to air emissions and noise nuisance are predicted for the Projects' corridors in the Geghi area, a small area around the western part of Lernadzor, and at the settlements located along the | Negative Negligible to Moderate |

⁶ Where there are multiple ratings for different impact extents, the colour for the highest significance rating is used.







| Topic | Cumulative Impact | Significance Rating(s) |
|---|---|--------------------------------------|
| | routes that will be used by the construction transport of the planned and/or concurrent projects. | |
| | Impacts on public safety due to road accidents during Project construction, on routes that will be used by construction transport for planned and/or concurrent projects. | Negative Negligible to Moderate |
| Public Utilities, Services and Infrastructure | Impact on regional healthcare facilities | Negative Moderate |
| Road users | Better regional connectivity and road safety for the road users | Positive Major |
| Occupational Health and Safety | Risks from workers exposure to higher air pollution and noise levels in the Geghi area due to the construction activities of two concurrent projects. | Negative Minor to Moderate |
| | Traffic accidents involving the workforce of concurrent Projects on the local roads. | Negative Minor |
| Biodiversity | Impacts on species and habitats inside Critical Habitats / Priority Biodiversity Features and beyond them. | Negative Negligible |
| | Impacts on National protected areas, Emerald Network Sites, and Key Biodiversity Areas (KBA). | Negative Negligible (for Meghri KBA) |
| Land Resources | Cumulative impacts on land use and agricultural activities are predicted for the Geghi and Lernadzor areas and potentially in new power line buffer zones. | Negative Negligible to Moderate |
| Soil Quality | Cumulative impacts on soil are predicted in the Geghi and Lernadzor areas, and potentially along the power line routes. | Negative Negligible to Moderate |
| Landscape | Cumulative impacts on landscapes are predicted for the power lines and the Project together. | Negative Moderate |
| Tangible Cultural Heritage | Destruction of, or damage to, cultural heritage resources. | Negative Minor |
| Intangible Cultural Heritage | Preservation of local traditions, practices, and rituals owing to SMEs and tourism activities in the region, attracted by reliable road connection opportunities. | Positive Minor to Moderate |
| Employment and Labour Markets | Generation of employment opportunities due to construction and operation of the projects. | Positive Moderate |
| Economy (Regional and Municipal) | Impacts on the taxes that will need to be paid to state budgets, procurement opportunities, and development of small and medium enterprises, including opportunities for women. | Positive Minor to Moderate |

5 MONITORING ACTIONS

In accordance with Lenders' requirements, the Project's E&S performance will be continuously monitored during the construction and operation phases of the Project to ensure compliance with the Project ESAP, ESMP and other specific E&S Management Plans, as well as the relevant national legislation requirements.

E&S Monitoring Plans for construction and operation phases will be developed, agreed with the Lenders, and implemented by the Contractor (during construction phase) and the RD (during the operation phase). Both observational and instrumental monitoring will be







conducted as per the Monitoring Plans. Appropriate human and material resources for their implementation will be allocated.

6 STAKEHOLDER ENGAGEMENT AND GRIEVANCE MECHANISM

Stakeholder engagement has been undertaken throughout the development of the ESIA. It was guided by a **preliminary Stakeholder Engagement Plan (SEP)**, which was prepared and disclosed as part of the Scoping Report⁷ in April 2022 to establish a framework for building and maintaining positive relations, and open and transparent two-way communication between the RD and stakeholders. During the ESIA process, from April 2021 to May 2023, up to 200 engagement events were held. Most were organised with support of the RD and regional, municipal, and local authorities. The engagement follows the Lenders' requirements and good international practice. The preliminary SEP was further updated to include the engagement activities during the Project's construction and operations stages, and was disclosed as part of the ESIA disclosure package.

The RD has set up a Project grievance mechanism for external stakeholders⁸ that complies with both, national and Lenders' requirements. Grievance mechanism was communicated to stakeholders during public consultations and distributed via the Scoping Leaflet and later via the ESIA Leaflet (during the draft ESIA consultations). Stakeholders can approach the RD via contact details provided below (Table 5) and available on the RD's website (https://armroad.am/en/contacts or https://armroad.am/am/contacts). Once the Construction Contractor and Supervision Engineer are appointed, their contact details will be disclosed, so inquiries and grievances can be channelled to them as well. At a later stage additional contract persons on the Project would be Community Liaison Officers hired by the RD. The contact details will be posted on notice boards of Sisian and Kajaran Communities and affected Administrative Areas, and designated boards at the construction sites. All grievances and enquiries will be registered, reviewed, and responded per a procedure stipulated in the SEP.

Table 5. RD's Contact Details for Raising Project-related Inquiries or Complaints

| Project-related inquiries and | Mr Artur Sanoyan |
|---|--|
| grievances can be sent to: | Project Manager for North-South Road Corridor Investment |
| | Project Tranches 2 and 4, "Road Department" Fund |
| | Government House 3, Republic Square, Yerevan 0010, Armenia |
| | artur.sanoyan@armroad.am |
| | office: +374 10 51-13-91 (269), mobile: +374 95 111 537 |
| For general inquiries stakeholders | "Road Department" Fund |
| can approach the RD using the | Government House 3, Republic Square, Yerevan 0010, Armenia |
| contacts at its website | +374 10 51-13-91 |
| (https://armroad.am/en/contacts) | info@armroad.am |

The residents of the villages located along the proposed road can also submit their inquiries and complaints to the heads of the respective villages. Any inquiries or concerns communicated to the local authorities (heads of villages or communities) will be immediately transmitted to the RD for review and redress.

⁸ A separate mechanism is developed to address worker grievances.







⁷ https://armroad.am/en/news/inner/News 25.04.2022