

**DOCUMENT OF THE EUROPEAN BANK  
FOR RECONSTRUCTION AND DEVELOPMENT**

Approved by the Board of Directors on 1 May 2024<sup>1</sup>

**ARMENIA**

**NORTH-SOUTH ROADCORRIDOR (SISIAN-  
KAJARAN SOUTHERN SECTION)  
ROAD PROJECT**

*[Redacted in line with the EBRD's Access to Information Policy]*

*[Information considered confidential has been removed from this document in accordance with the EBRD's Access to Information Policy (AIP). Such removed information is considered confidential because it falls under one of the provisions of Section III, paragraph 2 of the AIP]*

---

<sup>1</sup> As per section 1.4.8 of EBRD's Directive on Access to Information (2019), the Bank shall disclose Board reports for State Sector Projects within 30 calendar days of approval of the relevant Project by the Board of Directors. Confidential information has been removed from the Board report.

For the avoidance of any doubt, the information set out here was accurate as at the date of preparation of this document, prior to consideration and approval of the project.

## TABLE OF CONTENTS

	Page
<b>TABLE OF CONTENTS .....</b>	<b>2</b>
<b>ABBREVIATIONS / CURRENCY CONVERSIONS.....</b>	<b>3</b>
<b>PRESIDENT’S RECOMMENDATION .....</b>	<b>5</b>
<b>BOARD DECISION SHEET .....</b>	<b>6</b>
<b>ADDITIONAL SUMMARY TERMS FACTSHEET.....</b>	<b>7</b>
<b>1. STRATEGIC FIT AND KEY ISSUES.....</b>	<b>9</b>
<b>1.1 STRATEGIC CONTEXT.....</b>	<b>9</b>
<b>1.2 TRANSITION IMPACT .....</b>	<b>10</b>
<b>1.3 ADDITIONALITY .....</b>	<b>11</b>
<b>1.4 SOUND BANKING – KEY RISKS.....</b>	<b>12</b>
<b>2. MEASURING / MONITORING SUCCESS.....</b>	<b>13</b>
<b>3. KEY PARTIES .....</b>	<b>14</b>
<b>3.1 BORROWER .....</b>	<b>14</b>
<b>3.2 IMPLEMENTING AGENCY .....</b>	<b>14</b>
<b>4. MARKET CONTEXT .....</b>	<b>15</b>
<b>5. ECONOMIC ANALYSIS .....</b>	<b>15</b>
<b>5.1 SOVEREIGN ASSESSMENT .....</b>	<b>15</b>
<b>5.2 ECONOMIC ANALYSIS.....</b>	<b>15</b>
<b>5.3 PROJECTED PROFITABILITY FOR THE BANK.....</b>	<b>15</b>
<b>6. OTHER KEY CONSIDERATIONS.....</b>	<b>16</b>
<b>6.1 ENVIRONMENT.....</b>	<b>16</b>
<b>6.2 INTEGRITY .....</b>	<b>18</b>
<b>ANNEXES TO OPERATION REPORT .....</b>	<b>19</b>
<b>ANNEX 1 – PROJECT IMPLEMENTATION .....</b>	<b>20</b>
<b>ANNEX 2 - TRANSITION IMPACT SCORING CHART .....</b>	<b>21</b>
<b>ANNEX 3 – PROJECT AND NSRC MAP AND STATUS UPDATE .....</b>	<b>22</b>
<b>ANNEX 4 – GREEN ASSESSMENT.....</b>	<b>23</b>

**ABBREVIATIONS / CURRENCY CONVERSIONS**

ADB	Asian Development Bank
BAP	Biodiversity Action Plan
CAPEX	Capital Expenditures
CBA	Cost Benefit Analysis
CHMP	Cultural Heritage Management Plan
EDB	Eurasian Development Bank
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EIRR	Economic Internal Rate of Return
EPA	Anti-Corruption Action Plan
E&S	Environmental and Social
ESD	Environmental and Social Department
ESDD	Environmental and Social Due Diligence
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
EU	European Union
EU NIP	European Union Neighbourhood Investment Platform
EURIBOR	Euro Interbank Offered Rate
EV	Electric Vehicles
GDP	Gross Domestic Product
GET	Green Economy Transition
IBA	Important Bird Area
IMF	International Monetary Fund
ITS	Intelligent Transport System
KBA	Key Biodiversity Area
LARF	Land Acquisition and Resettlement Framework
MoF	Ministry of Finance
MTAI	Ministry of Territorial Administration and Infrastructure
NSRC	North South Road Corridor
NSRC IP	North South Road Corridor Investment Programme
NTS	Non-Technical Summary
OECD	Organisation for Economic Co-operation and Development
OPEX	Operating Costs
PA	Protected Area
PIA	Project Implementation Advisor
PIU	Project Implementation Unit
PMC	Project Management Consultant
PP&R	Procurement Policies and Rules
RDF	Road Department Fund
RF	Resettlement Framework

RP	Resettlement Plan
RST	Reform Support Team
SDA	Spoil Disposal Area
SEP	Stakeholder Engagement Plan
SLA	Service Level Agreement
SOE	State Owned Enterprise
SPA	Special Protection Area
SPS	Sector Policy Statement
SSF	Shareholder Special Fund
TEN-T	Trans-European Transport Network
TI	Transition Impact
TC	Technical Cooperation
ToR	Terms of Reference
USD	United States Dollar
VOC	Vehicle Operating Cost

### CURRENCY CONVERSION

EUR / AMD <sup>2</sup>	2021	2022	2023
Annual average	595.18	459.48	424.59

<sup>2</sup> Annual average of Central Bank of the Republic of Armenia's official exchange rates.

## PRESIDENT’S RECOMMENDATION

This recommendation and the attached Report concerning an operation in favour of the Republic of Armenia (the “Borrower”) are submitted for consideration by the Board of Directors.

The facility will consist of a sovereign loan to the Borrower of up to EUR 236 million. The operation will co-finance the construction of a new 24-km Southern section of the Sisian - Kajaran road of Armenia’s strategic North-South Road Corridor (the “Project”). Being part of the extended Trans-European Transport Network (“TEN-T”) corridor, the Project is vital for Armenia’s local, regional and international connectivity, and the country’s access to international markets via the Black Sea. The Project is one of the European Union’s (“EU”) Global Gateway flagship projects for 2024.

The Project’s expected transition impact derives from Integrated as a primary quality by providing the new infrastructure between or within regions that are currently inadequately integrated and supporting the development of a crucial transport corridor, and Well-Governed as a secondary quality by improving the existing institutional-regulatory capacity to manage sound commercial solutions in the sector. The Project will include a tailored package of Technical Cooperation (“TC”) support under the Bank’s SMART framework for engagement with the State Owned Enterprises (“SOEs”) and State Agencies, focused on the reform and modernisation of the road sector. The Project also anticipates climate change resilience improvements to allow the road to withstand adverse effects of the climate change, as well as the implementation of a road safety measures. Moreover, the Project will also be Gender SMART through strengthening gender responsiveness of the Client’s actions, including the integration of female refugees in the road sector.

Pre-signing TC for Project preparation and procurement support has been provided by the EU Neighbourhood Investment Platform (“EU NIP”) and the EBRD Shareholder Special Fund (“SSF”), while post-signing TC support to assist with the Project implementation and facilitate sector reforms is expected to be financed by an international donor and the SSF.

The Project is expected to be co-financed with the European Investment Bank (“EIB”) and is strongly supported by the European Union under its flagship initiatives for Armenia.

I am satisfied that the operation is consistent with the Bank’s Strategy for Armenia, the Transport Sector Strategy, the Green Economy Transition Approach 2021-2025, the Strategy for the Promotion of Gender Equality and with the Agreement Establishing the Bank.

I recommend that the Board approve the proposed loan substantially on the terms of the attached Report.

**Odile Renaud-Basso**

## BOARD DECISION SHEET

<b>Armenia - North-South Road Corridor (Sisian-Kajaran Southern Section) Road Project - DTM 51293</b>	
<b>Transaction / Board Decision</b>	Board approval <sup>3</sup> is sought for a sovereign loan of up to EUR 236 million, in favour of the Republic of Armenia to finance the construction of the 24-km Southern section of the Sisian - Kajaran road, part of the international North South Road Corridor (“NSRC”). The Sisian - Kajaran road also consists of the Bargushat tunnel and the Northern road section, expected to be financed by the EIB, the Asian Development Bank (“ADB”), and the Government of Armenia.
<b>Client</b>	The Borrower is the Republic of Armenia, represented by the Ministry of Finance. The Implementing Agency is the Road Department Fund (“RDF” or the “Client”) under the governance and on behalf of the Ministry of Territorial Administration and Infrastructure (“MTAI”).
<b>Main Elements of the Proposal</b>	<p><u>Transition Impact:</u></p> <ul style="list-style-type: none"> <li>• <b>Integrated</b> – The provision of new infrastructure between or within the regions that are currently inadequately integrated. The Project will provide a faster and safer connection of Syunik marz, Armenia’s southern region, with the rest of the country and, subsequently, Georgia and the EU via the Black Sea as part of the Extended TEN-T corridor, thus significantly improving Armenia’s transport integration.</li> <li>• <b>Well-governed</b> – The Project will include the launch of a reform initiative within the road sector utilising the Bank’s SMART framework to develop a Sector Diagnostics, Service Level Agreement and Intelligent Transport System strategy with the support of a Reform Support Team (“RST”) to be embedded in with RDF.</li> </ul> <p><u>Additionality:</u></p> <ul style="list-style-type: none"> <li>• Financing structure – long-term financing is not available in the country, which is necessary to structure the Project and will complement other IFIs;</li> <li>• Knowledge, innovation and capacity building – the Bank’s experience, innovation, knowledge and capabilities are material to the timely realisation of the Project.</li> <li>• The Project will also be Gender SMART, through strengthening gender responsiveness of the Client’s actions, including the integration of female refugees in the road sector.</li> </ul> <p><u>Sound banking:</u></p> <p>The transaction is a sovereign loan. The Bank’s Standard Terms and Conditions apply. [REDACTED].</p>
<b>Key Risks</b>	<ul style="list-style-type: none"> <li>• Implementation risk remains high due to [REDACTED] capacity of the RDF and technical complexity of the Project. The risk is mitigated by the establishment of a dedicated project implementation unit (“PIU”) and the engagement of experienced international consultants, namely: (i) a Project Management Consultant (“PMC”), aimed to bridge the gaps in the PIU’s capacity, (ii) a separate procurement support consultant to assist the PIU in the selection of the works contractor; and (iii) a construction supervision consultant to provide the services of “the Engineer” for the civil works contract.</li> <li>• Armenia’s sovereign credit rating stands at BB- with Stable outlook from Fitch, BB- with Stable outlook from S&amp;P, and Ba3 with Stable outlook from Moody’s.</li> </ul>
<b>Strategic Fit Summary</b>	The Project is consistent with the Bank’s Strategy for Armenia, the Transport Sector Strategy, the Green Economy Transition Approach 2021-2025, the Strategy for the Promotion of Gender Equality. It is the EU’s Global Gateway flagship project for 2024.

<sup>3</sup> Article 27 of the AEB provides the basis for this decision.

## ADDITIONAL SUMMARY TERMS FACTSHEET

<b>EBRD Transaction</b>	A sovereign loan of up to EUR 236 million to the Republic of Armenia.
<b>Existing Exposure</b>	<b>Sovereign exposure:</b> The total amount of sovereign portfolio stands at EUR 69.2 million as of Feb-2024, [REDACTED] : (DTM numbers: 39815, 40718, 41356, 43253, 43826, 46172, 46437, 46540, 46736, 50310, 51749).
<b>Maturity / Exit / Repayment</b>	Twenty-year maturity [REDACTED].
<b>Potential AMI eligible financing</b>	None.
<b>Use of Proceeds - Description</b>	<p>The proposed EBRD loan will be used to finance (i) the 24-km Southern section of the Sisian-Kajaran road, (ii) the costs of the Project Management Consultant and the Supervision Engineer, as well as (iii) the Front-end Fee.</p> <p>The Sisian-Kajaran road consists of the Northern road section, the Bargushat tunnel, and the Southern section. The road can be operational only as a whole, with all three sections operating in parallel. The Northern road section and the Bargushat tunnel will be co-financed in parallel by the ADB, the EIB and the Government of Armenia.</p>
<b>Investment Plan</b>	[REDACTED]
<b>Financing Plan</b>	[REDACTED]
<b>Key Parties Involved</b>	<ul style="list-style-type: none"> <li>• Borrower: The Republic of Armenia, represented by the Ministry of Finance</li> <li>• Implementing Agency: RDF under the governance and on behalf of the MTAI.</li> <li>• Co-financier: EIB</li> </ul>
<b>Conditions to effectiveness / disbursement</b>	[REDACTED]
<b>Key Covenants</b>	[REDACTED]
<b>Security / Guarantees</b>	Sovereign loan.
<b>Other material agreements</b>	<ul style="list-style-type: none"> <li>• Loan Agreement between the EBRD and the Borrower;</li> <li>• Project Implementation Agreement between the EBRD and the EIB;</li> <li>• Implementation Agreement between the EBRD and the ADB.</li> </ul>
<b>Associated Donor Funded TC and Blended Concessional Finance</b>	<p><b>A. Technical Cooperation (TC)</b></p> <p><i>Pre-signing:</i></p> <ul style="list-style-type: none"> <li>• <b>TC1: Feasibility Study</b>, including economic and technical due diligence, design review and the preparation of implementation strategy. The cost of the assignment is EUR 762,580, financed by the EU NIP.</li> <li>• <b>TC2: Environmental and Social Impact Assessment (“ESIA”)</b>, including the development of Environmental and Social Management Plans, the Land Acquisition and Resettlement Framework, the Stakeholder Engagement Plan and the ESIA disclosure. The cost of the assignment is EUR 686,764, financed by the EU NIP.</li> <li>• <b>TC3: EV Pathways and Strategic Initiatives Roadmap</b> to support Armenia to take initial steps in the development of EV infrastructure, through (i) the identification of a pathway for EV transition to be used for the Project; and (ii) the development of a strategic initiatives roadmap to support the EV transition. The cost of the assignment is EUR 74,960, financed by the EU NIP.</li> <li>• <b>TC4: Investigation and Modelling of Geohazards and Rockfalls</b> to identify areas where slope protection and stabilization measures are required, as well as to develop a preliminary design of the proposed measures to raise the level of safety and reliability for the road traffic. The cost of the assignment is EUR 164,974, financed by the SSF.</li> <li>• <b>TC5: Procurement Support</b> to assist the RDF in tender preparation, procurement, evaluation and contract award. The estimated cost of the assignment is up to EUR 350,000, expected to be financed by the SSF.</li> </ul> <p><i>Post-signing:</i></p>

	<ul style="list-style-type: none"> <li>• <b>TC6: Lender’s Technical Monitor</b> to monitor the progress of the Project, support the Bank with regular updates and provide technical and engineering support in reviewing and responding to RDF’s requests. The estimated cost of this assignment is [REDACTED] proposed to be financed by an international donor and/or the SSF.</li> <li>• <b>TC7: Lender’s Environmental &amp; Social (“E&amp;S”) Monitor</b> to monitor the progress of the Project and Environmental and Social Action Plan’s (“ESAP”) implementation, and support the Bank with regular updates. The estimated cost of this assignment is [REDACTED] proposed to be financed by an international donor and/or the SSF.</li> <li>• <b>TC8: SMART – Support for Road Sector Diagnostics, Sector Reform, Corporate Development and Capacity Building</b> to prepare a Sector Diagnostics, Sector Policy Statement, Service Level Agreement, ITS Strategy and support in the deployment of a focused RST. The estimated cost of this assignment is [REDACTED] proposed to be financed by an international donor and/or the SSF.</li> </ul> <p><b>Client contributions:</b> The Borrower will provide financial contribution to the Project by financing the services of the PMC and Supervision consultants [REDACTED] from the EBRD’s loan proceeds.</p> <p><b>B. Blended Concessional Finance</b> An investment grant from the EU NIP may be sought, post-signing, to co-finance the Project. Should the investment grant be approved by the EU NIP, the EBRD’s and EIB’s (the latter if approved) loans will be reduced proportionally by the amount of the investment grant.</p>
--	---

[REDACTED]

## INVESTMENT PROPOSAL SUMMARY

### 1. STRATEGIC FIT AND KEY ISSUES

#### 1.1 STRATEGIC CONTEXT

Armenia is a landlocked country. Its borders in the east and the southwest (with neighbouring Azerbaijan) and in the west (with Turkey) are closed since 1991 and 1993, respectively. Due to a mountainous terrain and underdeveloped railway network, Armenia's road system serves as the country's main transport network for both national and international traffic.

Armenia's key road transportation artery is the 556-km NSRC that links the country's northern and southern borders. The NSRC forms an integral part of the regional transit corridor connecting Europe and Asia and is part of the European Extended TEN-T corridor and the Transport Corridor Europe-Caucasus-Asia ("TRACECA"). The NSRC stretches from Armenia's southern border in Agarak and Meghri to the northern border at Bavra via Kapan and Yerevan and holds a pivotal role in ensuring Armenia's in-country and international connectivity. In the north, the corridor links Armenia with Georgia's East-West highway, leading to the Black Sea ports of Poti and Batumi. This strategic connection amplifies Armenia's trade potential and regional integration, as well as the country's access to Georgia and the external markets it provides.

Due to Armenia's complex geopolitical situation and poor connectivity<sup>4</sup>, the development of the NSRC is a key infrastructure priority for the Government of Armenia as stated in the Armenia's Transport Sector Strategy 2020. A special dedicated NSRC Investment Programme (2009-2024) ("NSRC IP") is in place, which requires consolidated efforts from the Government of Armenia and the IFIs to ensure rehabilitation of this strategic transport corridor. Split into five tranches, the NSRC IP has been co-financed to date by the ADB, EIB, the Eurasian Development Bank ("EDB"), the EU and the Government of Armenia. Please refer to Annex 3 for the current status of NSRC IP and maps.

The Sisian-Kajaran section of the NSRC is one of the three sub-sections of Tranche 4 of the NSRC IP, and is significantly larger and more complex than any other section of the NSRC. It is located in Armenia's southern and relatively more remote and less developed region of Syunik. This section has strategic importance for Armenia's local, inter-regional and international connectivity. Once complete, the Sisian-Kajaran road is expected to reduce the travel distance (from 130 km to 60 km), substantially reduce travel time (from the current 3-4 hours to one hour) and provide a faster and safer connection between Armenia's remote southern region of Syunik with Yerevan, the rest of the country and, subsequently, the EU via Georgia and the Black Sea.

The Project is an integral part of the Sisian-Kajaran road, as none of the three sections (the Northern, the Bargushat tunnel, and the Southern) can operate on its own. The Project will contribute towards providing a vitally important link for the access of Armenia's industry located in Syunik, particularly in the Kajaran area, to the international markets. The Project was designated as the key infrastructure priority by the Government of Armenia<sup>5</sup> and included in the Government's Mid-Term Expenditures Framework (2021-2026). [REDACTED].

<sup>4</sup> Armenia scores poorly on the road connectivity, as it ranks 112<sup>th</sup> out of 140 based on World Economic Forum's Global Competitiveness Index (2018). In addition, Armenia has one of the lowest levels of road transport integration within the EBRD region.

<sup>5</sup> Decree of the Government of Armenia No. 1564-U (1564-S).

The Project is consistent with the Bank’s Transport Sector Strategy as it (i) improves the intra-regional, regional and international connectivity, including on the key transport corridors such as the TEN-T; and (ii) improves quality of road infrastructure and addresses road safety. Moreover, the Project is aligned with the Bank’s Country Strategy for Armenia as it addresses the key identified issues of “*internal connectivity and cross-border integration*” which are hampered by underdeveloped infrastructure. In addition, the Project also showcases “*improved quality and connectivity of transport networks, and enhances “regional trade flows via improved logistics*”. As the Country Strategy acknowledges Armenia’s dependence on Georgia for access to the largest external markets, the Project, as part of the broader IFI efforts, addresses this by providing a much-improved connection to Georgia. The Project is also in line with the Bank’s Strategy for the Promotion of Gender Equality, through the MTAI and the RDF committing to promoting gender responsiveness of their actions.

The Project is aligned with two EU Flagship Initiatives for Armenia under the EU’s Economic and Investment Plan, including Flagship No.2 by “*Improved land transport connectivity, including through the implementation of priority projects identified in the Indicative Trans-European Transport Network Investment Action Plan*” and Flagship No.4 by “*Building Resilience in the Southern Regions of Armenia*”. The Project is one of the EU’s Global Gateway flagship projects for 2024.

## 1.2 TRANSITION IMPACT

### Primary Quality: Integrated

Obj. No.	Objective	Details
1.1	Provision of new infrastructure between or within regions that are currently inadequately integrated.	<p>The Project will support Armenia’s economic development by improving connectivity between its regions and the neighbouring countries. The Project is a strategic priority for Armenia as it forms part of the TEN-T corridor connecting the south of Armenia with its capital, as well as a quicker transport corridor to Georgia and, subsequently, to the EU.</p> <p>[REDACTED]</p> <p>The NSRC Investment Programme and, consequently, the Project, will help to address this constraint by providing a reliable and safe connection between the two neighbouring countries, as well as between Armenia and the EU. Once implemented, the Project will reduce travel distances and travel time, and will also allow for increased transport volumes of freight and passengers, whilst significantly improving the road safety.</p>

### Secondary Quality: Well-Governed

Obj. No.	Objective	Details
2.1	The Project supports the Well-Governed quality [REDACTED].	<p>The Project will include a significant package of TC support under the Bank’s SMART framework for engagement with SOEs and State Agencies, focussed on the reform and modernisation of the road sector. This will include several elements, including the development of: (i) Sector Diagnostics and the SPS to assess performance and define reform priorities in the sector; (ii) the SLA to define the levels of service and long term funding within the sector; and (iii) the ITS strategy and an EV Pathways and Strategic Initiative Roadmap to</p>

		<p>promote the adoption of EVs. As part of the Project, the Bank also intends to deploy an RST within the RDF and / or the MTAI with the objective of supporting the delivery and implementation of the reform objectives as identified in the SPS.</p> <p>The SPS will be informed by the Sector Diagnostics and will define the key policy and reform objectives for the sector, in agreement with stakeholders. This will include potential reforms to governance, funding and financing of the sector, efficiency and value for money, opportunities for the private sector participation and targeting of certain operational improvements e.g. on asset management and road safety. In addition, the SLA will be developed. This is a quasi-contract device defining the long-term levels of service to be provided on the road network (relating to asset condition, safety, journey times and wider factors) in exchange for a level of stable payment / funding to be agreed between the road agency, and will define the appropriate mechanisms to incentivise the performance and deal with uncertainty, disputes and changing requirements.</p>
--	--	---

**Delivery risks:** The risks for both Integrated and Well-Governed qualities are mainly related to (i) the Implementing Agency's capacity to implement the Project [REDACTED]. These risks are mitigated by the Government's willingness and strong commitment in developing the Project, given its strategic importance for trade and economic development of Armenia, as well as mobilisation of the PMC, which will support in the capacity building of the RDF, and consequently, in the achievement of transition impact. Reform conditionality is also conditioned into the structure of the Project and direct capacity will be provided through the embedding of an RST to focus on key TI objectives including those to be defined in the SPS and ITS strategy.

**Digital Approach:** Not applicable.

### 1.3 ADDITIONALITY

<b>Identified triggers</b>	<b>Description</b>
No triggers identified.	n/a
<b>Additionality sources</b>	<b>Description of additionality sources</b>
<p><b>Financing Structure</b> EBRD offers financing that is not available in the market from commercial sources on reasonable <b>terms and conditions</b>, e.g. a longer grace period. Such financing is necessary to structure the project.</p> <p>EBRD offers a <b>tenor</b>, which is longer than available to the client in the market on reasonable terms and conditions.</p>	<p>Provision of long-term financing in the country to match the life of infrastructure asset of the Project. The EBRD financing complements the financing of other IFIs.</p> <p>Tenor is twenty years [REDACTED] that is not available in the local market.</p>
<p><b>Risk mitigation</b> EBRD helps the client to <b>mitigate physical transition risks</b> and take climate action, such as to identify and manage physical climate risks and build resilience to them.</p>	<p>The Bank will promote the mitigation of physical climate risks and build resilience through the inclusion of climate resilience measures during construction and maintenance phases of the Project.</p>
<p><b>Policy, sector, institutional, or regulatory change</b> EBRD's involvement in a project is considered additional when it is designed to <b>trigger a change</b></p>	<p>The Bank is expected to trigger a change in the policy and sector framework, as the Project</p>

<p><b>in the policy</b>, sector, institutional or regulatory framework, or enhance practices at the sector or country level (e.g., an introduction of cost-reflective pricing of energy, water etc.).</p>	<p>supports the development of the SPS, the SLA and the ITS strategy for Armenia.</p>
<p><b>Standard-setting: helping projects and clients achieve higher standards</b>  Client seeks/makes use of EBRD expertise <b>for the adoption of gender standards and/or equal opportunities action plans.</b></p>	<p>Lack of accessible and safe road infrastructure hinders the economic integration of women by diminishing their employment opportunities, preventing them to run businesses, or travel for education or learning. This is of particular relevance for harder to reach groups, such as refugee women, who have even more limited access to municipal services, education, and broader social and economic inclusion, concentration of whom is high in the Syunik region, where the Project is located. The SPS to be completed as part of the Bank’s SMART framework will include the assessment of gender gaps in the road sector. This will ensure the needs of women and girls, including refugees, are incorporated into sector reforms in the country. The Project will also ensure that the SPS to be developed as part of the TC package is gender mainstreamed, highlighting the key gender and human capital development policy objectives for the road sector, to enhance women and girls, with the focus of refugees’ increased participation in the sector, including but not limited to improving their access to skills and employment, and participation in the decision-making process.</p>

#### 1.4 SOUND BANKING – KEY RISKS

Risks	Probability / Effect	Comments
<i>Project specific risks</i>		
Procurement risk	Medium / High	<p>The Government has decided to procure the Sisian-Kajaran road as three individual sections, as was advised during the due diligence. This allows optimisation of risk allocation and increases competition. Selection of a highly qualified contractor will be paramount due to high technical complexity of the Project.</p> <p>This risk is further mitigated by engagement of a Bank-contracted procurement support consultant, which will provide hands-on support to the Client and its PIU in conducting a procurement exercise in line with the Bank’s multi-stage tendering process with robust eligibility and qualification criteria.</p>
Cost over-run	High / High	<p>[REDACTED]. This risk is partly mitigated by the engagement of the procurement support consultant, who will help the Client in the development of tender documents and conducting the procurement process, aiming to keep the risk allocation as fair and transparent as possible under the proposed approach. In addition, clarification meetings during multi-stage tendering will be extensively utilised to ensure collaborative approach with the market players.</p>
Implementation risk	High / High	<p>The Project is technically complex and will require substantial capacity enhancement, both via strengthening of the RDF and through external advisory assistance.</p>

		<p>The risk is partly mitigated by (i) track record of the Government of Armenia in the rehabilitation of other sections of the NSRC; (ii) IFIs' requirement to establish a dedicated PIU [REDACTED]; and (iii) contracting of a specialised Project Management Consultant to assist the PIU with the Project implementation and capacity building [REDACTED]</p> <p>Lenders Technical and E&amp;S Monitors will provide additional oversight and reporting to the Bank on the application of mitigation measures. In addition, in order to mitigate the works coordination risk between various sections of the Sisian-Kajaran road, the RDF will have a requirement to ensure that other sections, and most importantly the Bargushat tunnel, has alternative access road, independent from the works site of the Bank-financed Southern road section.</p>
Creditworthiness of the sovereign	Medium / Medium	Armenia's public debt to GDP stood at 46.7 percent in 2022. Authorities are committed to fiscal consolidation and to the medium-term fiscal goal of debt sustainability, which according to the Fiscal Rule is to hold central government debt to GDP below 60 per cent. Fitch expects public debt to stabilise at around 44.6 per cent of GDP in 2023-2025, below its pre-pandemic level and well below the BB rating peer median.
<b>External risks</b>		
[REDACTED]	[REDACTED]	[REDACTED]
FX risk	Medium / Medium	[REDACTED]

## 2. MEASURING / MONITORING SUCCESS

### Transition Impact Monitoring Indicators

#### *Primary Quality: Integrated*

Obj. No.	Monitoring indicator	Details	Baseline	Target	Due date
1.1	Expanded access of infrastructure within regions [REDACTED]	The Sisian-Kajaran section of NSRC to reduce the travel distance from 130-km to 60-km.	[REDACTED]	[REDACTED]	[REDACTED]
1.2	Expanded access of infrastructure across regions [REDACTED]	The Sisian-Kajaran section of NSRC to reduce the travel time from the 3.5 hours to one hour.	[REDACTED]	[REDACTED]	[REDACTED]

#### *Secondary Quality: Well-Governed*

Obj. No.	Monitoring indicator	Details	Baseline	Target	Due date
2.1	Public service contract or Public Service Obligation signed and implemented [REDACTED]	Service Level Agreement for the road network has been developed.	[REDACTED]	[REDACTED]	[REDACTED]
2.2	Policy advice delivered: Draft recommendations for improved policy/strategy submitted [REDACTED]	Sector Policy Statement has been developed and adopted.	[REDACTED]	[REDACTED]	[REDACTED]

2.3	New or updated technology introduced [Donor TC]	Intelligent Traffic System Strategy has been developed and adopted.	[REDACTED]	[REDACTED]	[REDACTED]
2.4	Policy advice delivered: Draft recommendations for improved policy/strategy submitted [REDACTED]	Three key recommendations as identified in the Sector Policy Statement have been implemented.	[REDACTED]	[REDACTED]	[REDACTED]

### ***Additional Indicators***

<b>Indicator type</b>	<b>Monitoring indicator</b>	<b>Details</b>	<b>Baseline</b>	<b>Target</b>	<b>Due date</b>
Advisory & Policy Indicators	Policy advice delivered: Draft recommendations for improved policy/strategy submitted [Donor TC]	The Reform Support Team has been embedded within the RDF and / or the MTAI.	[REDACTED]	[REDACTED]	[REDACTED]
Advisory & Policy Indicators	Practices of the relevant stakeholder improved (equal opportunity practices of the client) [Donor TC]	Sector Diagnostic and Sector Policy Statement are gender mainstreamed.	[REDACTED]	[REDACTED]	[REDACTED]

## **3. KEY PARTIES**

### **3.1 BORROWER**

The Borrower is the Republic of Armenia, represented by the Ministry of Finance. In February 2024, Fitch retained the Armenia's sovereign rating at 'BB-' with the Stable outlook. Moody's has upgraded economic outlook from Negative to Stable, and retained credit rating at 'Ba3' in September 2023. The S&P also revised the rating from 'B+ Stable' to 'BB- Stable' in August 2023. Overall ratings reflect relatively stable economic growth despite the refugee crisis and the ongoing war on Ukraine. In the long-term, strengthened macroeconomic policy framework, commitment to reform of governance and large share of long-term concessional loans are expected to account for a positive revision of credit ratings.

### **3.2 IMPLEMENTING AGENCY**

The Implementing Agency is the RDF who will be responsible for the implementation of the Project, operating under the governance and on behalf of the MTAI. The MTAI is a sector ministry responsible for overseeing various aspects of territorial governance and infrastructure development in Armenia. One of its core areas of responsibility is planning, construction, and maintenance of the country's road network.

The RDF is a specialized entity dedicated to the management, coordination and implementation of road-related projects. It plays the key role in allocating resources, coordinating construction efforts, implementing maintenance strategies, and ensuring the overall functionality and safety of Armenia's roads. Albeit formally independent, the RDF operates in close coordination with and under the supervision of the MTAI. The NSRC IP is the core project of the MTAI and the RDF.

## 4. MARKET CONTEXT

As a landlocked country characterized by mountainous terrain and unpredictable weather shifts, Armenia relies heavily on cross-border transportation to facilitate its trade activities. The country faces significant challenges and high transaction costs in trade due to three main factors:

- Outdated transport network: The Soviet legacy of the majority of Armenia's transportation infrastructure constraints its efficiency.
- Landlocked geography: Armenia lacks direct access to sea ports, which increases its dependence on neighbouring countries for access to further trade routes (primarily, on Georgia) and inflates prices due to increased transportation costs.
- Border closures and restrictions: Two out of Armenia's four international borders remain closed, which further limits cross-border transportation options, drives up costs, and requires substantial investments in upkeep and renewal of border infrastructure. [REDACTED]

### ***Road sector:***

Due to an underdeveloped railway network, principally due to the mountainous terrain, the 8,140 km long road network provides the main transportation means in Armenia. Thus, the NSRC, which connects Armenia's southern and northern borders, holds a pivotal role in ensuring Armenia's connectivity.

The NSRC's strategic connection with Georgia's East-West highway, leading to the Black Sea ports of Poti and Batumi amplifies Armenia's trade potential and regional integration, as well as Armenia's dependence on its gateway to Georgia.

The NSRC IP aims to transform this strategic 556-km long transportation artery, which currently falls mostly under the second and third technical road category with speed limits of 30-90 km/hour, into a modernized 463-km long first category high-speed highway. This is expected to allow for higher speed limits (100-110 km/hour) and substantially reduced travel time.

## 5. ECONOMIC ANALYSIS

### **5.1 SOVEREIGN ASSESSMENT**

[REDACTED]

### **5.2 ECONOMIC ANALYSIS**

[REDACTED]

### **5.3 PROJECTED PROFITABILITY FOR THE BANK**

[REDACTED]

## 6. OTHER KEY CONSIDERATIONS

### 6.1 ENVIRONMENT

Category A (ESP 2019). The Project was Categorised A as it has the potential to have significant E&S impacts associated with the construction and operation of the road.

The Bank is considering the provision of a sovereign loan to finance the construction of the 24-km Southern section of the Sisian - Kajaran road. The Sisian - Kajaran road also consists of the Bargushat tunnel and the Northern road section, expected to be financed by the EIB, the ADB and the Government of Armenia. The EBRD considers the Bargushat tunnel and the Northern Road section to be associated facilities under its Environment and Social Policy 2019. A Feasibility Study (“FS”) and the detailed design for the entire Sisian-Kajaran road were prepared during 2016-2019 and were funded by the ADB. Alongside the FS and detailed design, the national Environmental Impact Assessment (“EIA”) was prepared. The RDF obtained the Environmental Approval (i.e. State Expertise Conclusion) in November 2023.

An independent consultant was appointed to complete a comprehensive ESIA disclosure package for the Sisian-Kajaran road, inclusive of:

- Environmental and Social Impact Assessment
- Environmental and Social Management Plan (“ESMP”)
- Environmental and Social Action Plan
- Biodiversity Action Plan (“BAP”)
- Non-Technical Summary (“NTS”)
- Stakeholder Engagement Plan (“SEP”)
- Resettlement Framework (“RF”).

The ESIA documentation was disclosed on the EBRD’s and Client's websites on 24 and 21 July 2023, respectively, for a period of over 120 days and the public consultations on the ESIA documentation were concluded on 1 December 2023. Details on the financing of the road were revised after the disclosure of the ESIA so an updated NTS will be publicly disclosed with further details on this and confirmation of the associated facilities, which for EBRD includes the Bargushat tunnel and the Northern section of the Sisian-Kajaran road.

An ESIA Disclosure and Consultation Report was prepared following the completion of the public meetings and the ESIA package was updated to address the comments received from interested stakeholders. Through these documents and the ESIA process, measures have been defined to avoid and minimise impacts not addressed in the original national EIA. The ESAP, ESMP, BAP and RF have been prepared to enable the Project to be developed and operated in accordance with the EBRD Performance Requirements (“PR”).

The ESIA has assessed the optimal route identified in the FS based on a multi criteria analysis but also proposed some alternatives to optimise the alignment and mitigate impacts. These include reviewing the Category 1 design criteria, notably design speed and gradient, changing the position of the southern tunnel portal to reduce the amount of excavated material from the tunnel with reduced transport and disposal benefits plus crossing points for cattle and pedestrians. The ESAP includes the requirement for a Change Management Procedure requiring any material changes in the design to be assessed in line with EBRD E&S requirements. TC funds have been provided to support an ESAP requirement for additional investigations and modelling of geohazard risks to identify if and where specific design changes and/or mitigation measures, such as Slope Stabilisation Plans, may be needed.

The RF has been prepared and disclosed publicly, defining compensation and livelihood restoration entitlement principles for the Sisian-Kajaran road, which will be detailed in the Resettlement Plans ("RP"). A RP in line with EBRD's PR5 is already being prepared for the Project and expected to be finalized in Q3 2024. The RP will be implemented on a sectional basis to allow for flexibility in terms of the contractor accessing the land plots and scheduling works. An independent Resettlement Completion Audit is required in the ESAP to verify the completion of livelihood restoration for the Project and achieving pre-project levels for all Project Affected People in line with the RP.

The existing 130 km road between Sisian and Kajaran has a maximum speed of 90 km/hour; however, travel time is 3-4 hours due to the hazardous driving conditions which are evident from the road traffic collision data. The ESAP requires the RDF to undertake an independent Road Safety Audit of the detailed design and requests that the design team review the audit report and incorporate all technically and economically feasible recommendations into the final design. In addition, a road inspection/condition survey, together with a Construction Traffic Management Plan, will be developed due to the significant amount of construction traffic involved during the mobilisation and construction phases. To reduce adverse impacts to public safety and agricultural activities, road safety awareness and temporary road safety measures will be introduced.

The biodiversity baseline analysis was based on an extensive literature review, consultations with national and local stakeholders, site surveys and fieldwork undertaken over four seasons in 2021 and 2022 for the complete Sisian-Kajaran road. The Sisian-Kajaran road includes several road tunnels and bridges, which are important avoidance measures, as they reduce possible interferences with important areas for biodiversity by passing below them.

The Qirs-Geghi section of the Project runs through Zangezur Important Bird Area ("IBA") and Key Biodiversity Areas ("KBA") of Zangezur and Meghri. Currently there are no management plans for the Special Protection Areas ("SPAs"), KBAs and KBIs available, however meetings were held with the Ministry of Environment and Manager of the Protected Area ("PA") Zangezur Sanctuary whose opinion about the Sisian-Kajaran road and the EBRD Project was overall positive. The PA Manager provided the list of mitigation measures, which has been considered in the BAP. The Ministry of Environment reviewed the BAP and provided comments were addressed in the updated BAP. The two institutions were of opinion that if proposed biodiversity mitigation measures were applied, no significant impacts to the core biodiversity values would be expected. In addition, the Appropriate Assessment for the Sisian-Kajaran road indicates that with the implementation of proposed mitigation measures (within the BAP), there will be no impact affecting the integrity of the protected areas or internationally recognised areas of biodiversity.

The ESIA, Critical Habitats Assessment, Appropriate Assessment and BAP assessed the impacts on priority biodiversity features and species and habitats triggering critical habitat associated with habitat loss and degradation, species disturbance, potential mortality, and loss of connectivity, as well as possible accidental pollution. The BAP and ESAP include the requirement for the detailed design to include passages for wild animals to avoid impacts, appointment of qualified experts, implementation of mitigation measures during construction and operational phases, and the development and implementation of Biodiversity Offset Management Plan to ensure no net loss of natural habitat and a net gain of critical habitats is achieved.

Excess spoil material that cannot be reused for the road construction will need to be accommodated in Spoil Disposal Areas ("SDAs"). SDAs have been preliminarily identified

and assessed as part of the ESIA. The locations of most of the SDAs have been preliminarily approved by the Sisian and Kajaran Community Administrations.

In-depth baseline studies have been completed identifying all tangible cultural heritage within 500m on both sides of the proposed Sisian-Kajaran road and tentatively proposed SDAs. Some cultural heritage items are likely to be directly affected by the road construction and may require relocation and ex situ conservation. Additionally, the ESAP requires developing landscaping measures to reduce the visual impact of the new road in general, but specifically where the road is in close proximity to important heritage structures. No adverse impacts on intangible cultural heritage features that are registered in the national list of values and the UNESCO representative list are expected. As part of ESIA disclosure meetings, consultations with key users and custodians of each cultural heritage site have been carried out and their feedback considered. A detailed Cultural Heritage Management Plan (“CHMP”) has been developed and is required to be agreed with National Authorities and lenders as well as included into the tendering documentation. Implementation of the CHMP will be verified by independent monitoring.

The E&S performance of the Project relies on the project-specific E&S management frameworks and systems developed and implemented by their contractors. Therefore, a significant risk associated with the Project will lie with contractors' management and monitoring by the RDF and ensuring that the contractors are aware of their responsibilities and that they implement adequate actions to avoid, minimise, mitigate and manage these risks as identified in the ESIA, ESMP, BAP and associated management plans. The RDF will monitor the implementation of the ESMP and ESAP mitigation measures by the contractors via the Supervision Engineer and the PMC. The Lenders' E&S Monitoring Consultant will be also engaged to oversee the implementation of E&S management plans and report regularly to the Bank.

A comprehensive E&S management system is required as part of the ESAP to ensure the contractor adequately address the E&S impacts and risks of the Project. This includes a PR2-aligned HR policy and procedures including a worker grievance mechanism and Code of Conduct covering Gender Based Violence and Harassment issues, plus worker accommodation are required to be provided in line with the IFC/EBRD guidelines for worker accommodation.

The SEP includes a summary of information disclosure and community meetings conducted to date, as well as an outline of the upcoming consultation activities and details of the Project grievance mechanism. During the ESIA preparation stage over 2022 and 2023, there were 49 stakeholder engagement events carried out for the Sisian-Kajaran road that included consultation meetings, focus group discussions, public consultations, and scoping meetings across 16 villages and settlements. The ESAP requires the appointment of Community Liaison Officers for the Project, including at least one female.

## **6.2 INTEGRITY**

In conjunction with OCCO, integrity due diligence was undertaken on the Ministry of Territorial Administration and Infrastructure (MTAI), the Road Development Fund (RDF) and their senior management. [REDACTED]

All actions required by applicable EBRD procedures relevant to the prevention of money laundering, terrorist financing and other integrity issues have been taken with respect to the Project, and the project files contain the integrity checklists and other required documentation which have been properly and accurately completed to proceed with the Project.

**ANNEXES TO OPERATION REPORT**

ANNEX 1	Project Implementation
ANNEX 2	Transition Impact Scoring Chart
ANNEX 3	Project and NSRC Map and Status Update
ANNEX 4	Green Assessment

## ANNEX 1 – PROJECT IMPLEMENTATION

### Procurement classification – *Public [sovereign]*

[REDACTED]. The RDF under the MTAI will be responsible for the Project implementation. [REDACTED]. The IFIs have provided a detailed guidance on establishment and optimal composition of the PIU for the RDF’s benefit.

To mitigate implementation risk, it is expected that the Project dedicated PIU will be established in the RDF. An experienced Project Management Consultant will be selected to bridge the gaps in the PIU’s capacity and to provide hands-on support during the whole implementation process. The PMC will provide the required knowledge, project management and technical expertise to build the RDF and its PIU capacity, as well as to assist with compliance to loan agreement covenants and achievement of agreed project monitoring indicators in stipulated time frame. The PMC will also provide access to a pool of technical experts if required on *ad-hoc* basis. The RDF, supported by the PMC, will be responsible for the management of the Sisian-Kajaran road (including Southern and Northern road sections, and Bargushat tunnel).

*Contracts risk assessment* - *High*

The Project capital expenditure consists of one design and build contract for the construction of the Southern section of the Sisian – Kajaran road based on FIDIC Yellow Book contract. Road construction works in geologically challenging region, remote geographical location, with a limited access in mountainous region with harsh climate, [REDACTED]. In addition, the road section is located in a complex region with recent military activities and difficult accessibility, [REDACTED].

### Project implementation arrangements:

The whole Sisian-Kajaran road section (ca. 60km) is viewed as a programme<sup>6</sup> consisting of three individual projects, for the construction of:

- Northern section – expected to be co-financed by the ADB and the EIB;
- Tunnel section – expected to be financed by the Government of Armenia; and
- Southern section – expected to be co-financed by the EBRD and the EIB. [REDACTED]
- 

### Procurement arrangements:

All goods, works and services, financed from the EBRD loan, will be procured following open competitive procedures in accordance with the requirements of the EBRD Procurement Policies and Rules (“PPR”) for public sector operations.

The Project will use the Bank’s latest templates of tender documents and will conduct all procurement activities through ECEPP, to ensure highest degree of transparency and efficiency.

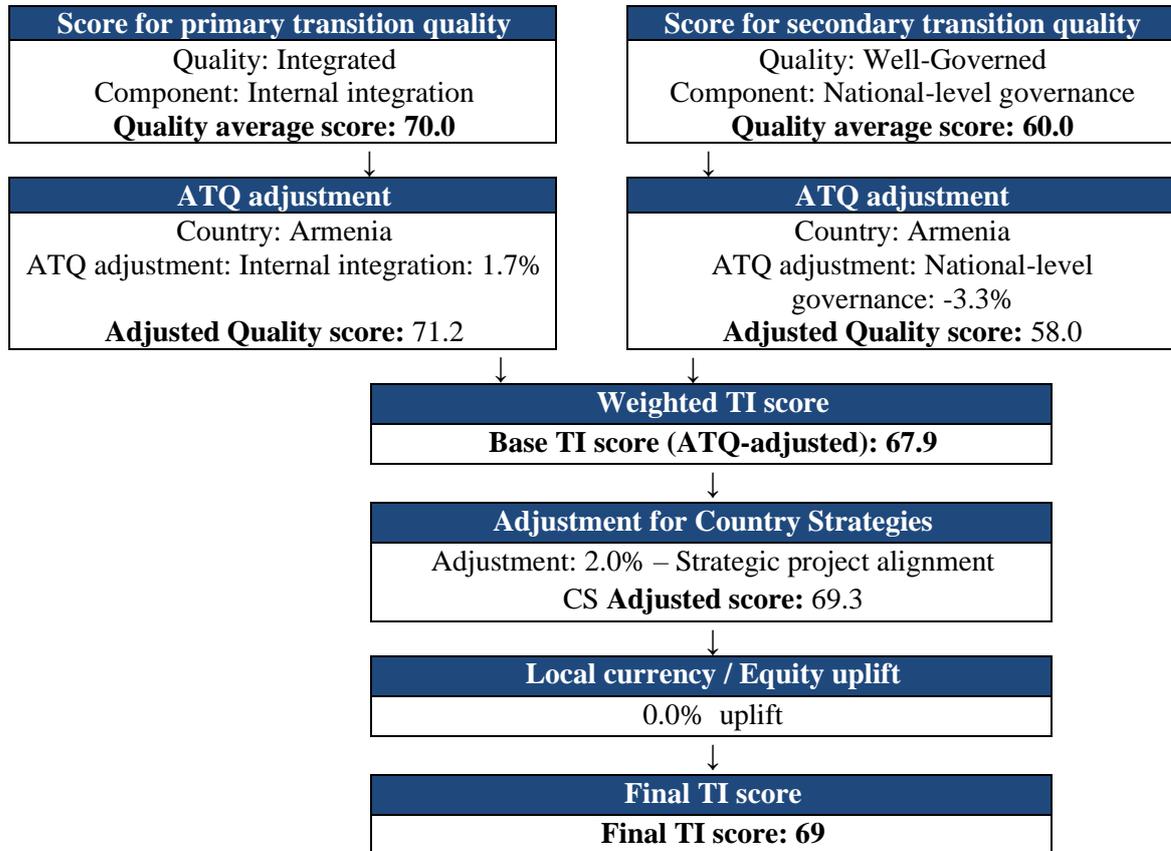
All contracts will be subject to prior review by the Bank.

Contracts jointly financed with the EIB will be procured in accordance with the EBRD PPR. Contract for the PMC will be procured in accordance with the ADB procurement rules and in accordance with the respective Implementation Agreement between the ADB and the EBRD. [REDACTED].

---

<sup>6</sup> A set of related projects that are executed co-ordinately so that resources are shared among projects for increased efficiency.

## ANNEX 2 - TRANSITION IMPACT SCORING CHART



# ANNEX 3 – PROJECT AND NSRC MAP AND STATUS UPDATE



[REDACTED]

## ANNEX 4 – GREEN ASSESSMENT

### SUMMARY

- The Project entails a **sovereign loan** to finance the construction of a new road section of 24 km in the south of Armenia. The project financed by the EBRD is the Southern section of a wider project between Sisian and Kajaran. This road project is a crucial segment of the NSRC connecting Armenia's northern and southern regions.
- The Project is determined **aligned with both mitigation and adaptation goals of the Paris Agreement**.
- The Project is attributed **25 per cent GET for climate change adaptation**.

[REDACTED]

### PARIS ALIGNMENT ASSESSMENT

#### *Alignment with the mitigation goals of Paris Agreement*

The Project was subject to a specific assessment for alignment with the mitigation goals of the Paris Agreement. The key findings from this assessment are as follows:

The Project is consistent with the Armenian Nationally Determined Contribution (“NDC”). The Republic of Armenia is committed to an unconditional target of 40 per cent reduction of its net greenhouse gas emissions by 2030 as compared to 1990 levels, as stated in its NDC submitted in 2021<sup>7</sup>. At the end of 2023, the Government of Armenia approved the Long-term Low Greenhouse Gas Emissions Development Strategy of the Republic of Armenia<sup>8</sup> covering the period until 2050. A review of the NDC and the long-term strategy indicates that the primary lever for road based transportation CO<sub>2</sub> reductions is through the promotion of electric vehicles. No specific information was identified in the NDC or long-term strategy related to the development of inter-urban road infrastructure.

The Project is consistent with a Low-Carbon Pathway (“LCP”). The long-term strategy defines a trajectory for transport decarbonisation. This trajectory is highly reliant on electric vehicles adoption. Consistency of the Project thus entails being compatible with EVs and other alternative fuel vehicles, and being able to accommodate infrastructure required for charging of future low-carbon vehicle fleets. The Project is a 24 km very mountainous section of the North-South Transport Corridor. There are no apparent national regulations regarding provision of charging infrastructure on national corridors. Using the EU Alternative Fuels Infrastructure Regulation (“AFIR”) as a proxy indicates that a charging station should be made available at least every 60-km on main highways. A Motorway Service Station being planned at the northern section of the Motorway will include EV charging infrastructure.

The Project demonstrates a low-risk of carbon lock-in. Road infrastructure delivers passenger and freight connectivity, and the infrastructure needs to be considered in the context of a wider transportation system alongside other modes. This Project is part of the NSRC connecting Armenia's northern border with Georgia and its southern border with Iran and is of crucial importance for Armenia's connectivity, as well as part of the extended TEN-T network. The Eastern Partnership TEN-T corridor network in Armenia is conceived alongside alternative modes, including rail. Other parallel investment programmes are supporting the upgrade of the railway sector in the country. Carbon lock-in assessment also looks at whether there is a high likelihood of transition to low-carbon vehicle fleets within the lifespan of the asset. Scenarios for fleet electrification were prepared for the Bank as part of technical due diligence to inform

---

<sup>7</sup> <https://unfccc.int/NDCREG>

<sup>8</sup> [https://unfccc.int/sites/default/files/resource/UNDP%20LT\\_LEDS\\_ARMENIA.pdf](https://unfccc.int/sites/default/files/resource/UNDP%20LT_LEDS_ARMENIA.pdf)

the economic assessment. The scenarios set out the expected uptake of electric vehicles based on current market trends and scenarios. Conservative scenarios see a significant displacement of internal combustion engine vehicles in the overall fleet. In addition, the Government has taken steps to support road transport decarbonisation by elaborating a National Electric Mobility Policy to be adopted in the coming months. Given that the Project is conceived in the context of national strategic planning, is an interurban road (as opposed to urban roads that present a higher risk of carbon lock-in), does not prevent alternative modes from being developed, and there is a high likelihood of transition to low carbon vehicle fleets, the risk of carbon lock-in is assessed as low.

The Project does not require an adapted economic test. This Project substantially reduces the total point to point distances travelled of vehicles. Prior to the Project, a vehicle from Sisian to Kajaran would travel 129 km. With the Project, this is reduced to 60 km, of which 24.1km are within the southern section financed by the EBRD. The net impact in the section financed by the EBRD, including induced emissions, is a net reduction of annual Scope 3 operating emissions of 5.6 ktCO<sub>2e</sub> during the evaluation period (2031-2053). The Project has an annual average absolute scope 3 emissions of 26.2ktCO<sub>2e</sub>.

***Conclusion:** The Project is assessed as aligned with the mitigation goals of Paris Agreement (BB1 aligned).*

#### ***Alignment with the adaptation goals of Paris Agreement***

The Project is determined as aligned with the adaptation goals of the Paris Agreement as it satisfies all three steps of the assessment.

A comprehensive climate risk assessment identified extreme mass movements, floods and extreme temperatures as material physical climate risks for the road. Suitable climate resilience measures will be included in the Project (see GET section below) and will be monitored as set out in the Green Project Monitoring Plan (“GPMP”). Such specific measures include the construction of landslide and rock fall protection measures, improvements in the drainage and culvert design and changes in the pavement thickness. In addition, the Project does not undermine the resilience of wider systems and is not inconsistent with the national policy for context adaptation.

***Conclusion:** The Project is assessed as aligned with the adaptation goals of Paris Agreement (BB2 aligned).*

#### **GET ATTRIBUTION**

A GET share of 25 per cent is attributed to this Project following the methodology set out in the GET Handbook. The three step approach in line with j-MDB methodology for attribution of climate adaptation finance is presented below.

##### ***Step 1 – Climate vulnerability context***

In the context of this investment the EBRD engaged a Consultant to undertake an analysis of the whole Sisian-Kajaran road section, mapping in detail the exposure of road to climate vulnerabilities. This climate risk assessment identified mass movements, extreme precipitation and potentially extreme temperature and wildfires as material risks. The very mountainous terrain crossed makes the road particularly vulnerable to landslides and rockfalls resulting from increased extreme precipitation, soil erosion, gravitational mass movements and freeze-thaw cycles. The assessed meteorological models project for the future an increasing trend in precipitation intensity for area of the Project, with a rise in the average largest one-day and five-day precipitation and in the number of projected days with precipitation higher than 20 mm.

***Step 2 – Statement of intent***

The EBRD engaged with the Client to improve the resilience of the Project to the identified climate hazards. During the assessment of the risks and evaluation of the Project documentation, it was possible to define concrete adaptation measures for extreme precipitation and extreme temperature risks. The geological complexity required the launch of a specific geohazard assessment study, currently under preparation. That study will finalise the identification of the specific measures to be included in the tender documents for the design and construction contract. The Client has agreed to this procedure and:

- A capex budget of 17.59 million Euro has been allocated to geohazard protection works, before applying Project contingencies;
- The requirements of completion of the study and integrating its results in the final Project designs have been agreed [REDACTED]

***Step 3 – Link between climate vulnerability and Project activities***

A number of climate resilience measures are integrated into the design and operation of the Project. These measures are designed to reduce the exposure of the system to a hazard; reduce the consequence of a hazard event; or improve the recovery from a hazard impact. Specific measures within the Project that address the identified vulnerabilities have been integrated in the ESAP and will be monitored and reported on. These include, among others:

- Drainage: redesign the drainage by applying a climate change allowance for increased rainfall of 40 per cent.
- Rockfall protection, avalanche protection and slope support measures: the results of the geohazard desk-based risk study will likely result in the design and implementation of rock fall protection kits (fences), wire mesh nets, avalanche protection measures, etc. These are to be integrated in the tender requirements for the design and build contracts.
- Increase of road pavement asphalt layers thickness by around 6 per cent to increase its resilience to heat stress.
- Wildfire protection measures:
  - Establishment of a Wildfire Prevention Plan for road construction and operation;
  - Fire Safety Training and Awareness for road operation personnel

***GET Adaptation Finance Attribution***

The GET adaptation finance assessment is based on reductions in both weather-related damage to the road infrastructure and weather-related disruption to traffic on the road network that result from financing and implementing a climate-resilient road design. Specifically, the landslide and rockfall protection measures will dramatically reduce the road vulnerability to disruption from extreme floods and mass movement events. Following the GET adaptation methodology adopted in August 2023 the Project:

- Delivers physical Climate Resilience Outcome (“CRO”), specifically in response to landslides, rockfalls, floods and extreme heat, by ensuring the integration of adaptation measures in the Project design, mitigating risk of disruption and damage (+10 per cent GET);
- Project documentation demonstrates that a dedicated climate risk and vulnerability assessment has been undertaken referencing relevant international standards and guidance (+5 per cent GET);
- CRO higher than 10 per cent resulting from mainly weather-related disruption savings (+10 per cent GET).

The GET adaptation attribution of the Project is therefore 25 per cent. [REDACTED].