



FOR OFFICIAL USE ONLY

Report No: PAD4232

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF US\$65 MILLION

TO THE

REPUBLIC OF AZERBAIJAN

FOR A

REGIONAL CONNECTIVITY AND DEVELOPMENT PROJECT

April 29, 2021

Transport Global Practice
Europe And Central Asia Region

This document is being made publicly available prior to Board consideration. This does not imply a presumed outcome. This document may be updated following Board consideration and the updated document will be made publicly available in accordance with the Bank's policy on Access to Information.

CURRENCY EQUIVALENTS

(Exchange Rate Effective {April 29, 2021})

Currency Unit = Azerbaijani Manat (AZN)

AZN 1.7000 = US\$1

FISCAL YEAR

January 1 - December 31

Regional Vice President: Anna M. Bjerde

Country Director: Sebastian-A Molineus

Regional Director: Lucio Monari

Practice Manager: Karla Gonzalez Carvajal

Task Team Leader(s): Nijat Valiyev, Fiona J Collin

ABBREVIATIONS AND ACRONYMS

AADT	Average Annual Daily Traffic
ADB	Asian Development Bank
SAAAR	State Agency for Azerbaijan Automobile Roads
AZN	Azerbaijani Manat
Bank	The World Bank
CoA	Chamber of Auditors
CCB	Climate Co-Benefits
COVID-19	Coronavirus Disease 2019
CPF	Country Partnership Framework
DA	Designated Account
EBRD	European Bank for Reconstruction and Development
ECA	Europe and Central Asia
EIRR	Economic Internal Rate of Return
EMF	Environmental Management Framework
ESCP	Environmental and Social Commitment Plan
ESIA	Environmental and Social Impact Assessment
EMP	Environmental Management Plan
ESF	Environmental and Social Framework
ESMP	Environmental and Social Management Plan
ESHS	Environmental Social Health and Safety
GDP	Gross Domestic Product
GHG	Green-house gas
GoA	Government of the Republic of Azerbaijan
HDM4	Highway Development and Management Model
IBRD	International Bank for Reconstruction and Development
ICR	Implementation Completion and Results Report
INDC	Intended Nationally Determined Contribution
IRI	International Roughness Index
ITS	Intelligent Transport Systems
MoTCHT	Ministry of Transport, Communications and High Technologies
MFD	Maximizing Finance for Development
PAD	Project Appraisal Document
PDO	Project Development Objective
PIE	Project Implementing Entity
PIU	Project Implementing Unit
POM	Project Operational Manual
PPSD	Project Procurement Strategy for Development
RAP	Resettlement Action Plan
RF	Road Fund
RPF	Rresettlement Policy Framework
RS	Road Safety
RSSAT	Road Safety Screening and Appraisal Tool
RUC	Road-user charges
SCD	Systematic Country Diagnostic

SEP	Stakeholder Engagement Plan
TA	Technical Assistance
THP	Third Highway Project (P118023)
ToR	Terms of Reference
INFCCC	United Nations Framework Convention on Climate Change
USD, US\$	United States Dollars
VPD	Vehicles Per Day
WB, Bank	The World Bank
WIM	Weigh-In-Motion



TABLE OF CONTENTS

DATASHEET.....	1
I. STRATEGIC CONTEXT	6
A. Country Context.....	6
B. Sectoral and Institutional Context.....	7
C. Relevance to Higher Objectives.....	11
II. PROJECT DESCRIPTION.....	13
A. Project Development Objectives.....	13
B. Results Chain.....	13
C. Project Beneficiaries	14
D. Project Components.....	15
E. Rationale for Bank Involvement and Role of Partners	19
F. Lessons Learnt and Reflected in the Project Design	20
III. IMPLEMENTATION ARRANGEMENTS.....	21
A. Institutional and Implementation Arrangements	21
B. Results Monitoring and Evaluation Arrangements.....	22
C. Sustainability.....	22
IV. PROJECT APPRAISAL SUMMARY.....	23
A. Technical and Economic Appraisal	23
B. Fiduciary.....	24
C. Legal Operational Policies.....	26
D. Environmental and Social.....	26
V. GRIEVANCE REDRESS SERVICES	28
VI. KEY RISKS	28
VII. RESULTS FRAMEWORK AND MONITORING.....	30
ANNEX 1: Implementation Arrangements and Support Plan.....	42
ANNEX 2: Technical Appraisal Details.....	51
ANNEX 3: The Local Development and Logistics Component Implementation Details	55
ANNEX 4: Climate Change and Climate Co-Benefits	58
ANNEX 5: Economic Analysis and GHG Accounting	61
ANNEX 6: COVID 19: Azerbaijan CPF Adjustment Note.....	65
ANNEX 7: Maps	68

DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Azerbaijan	Regional Connectivity and Development Project	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P174379	Investment Project Financing	Moderate

Financing & Implementation Modalities

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
20-May-2021	31-Mar-2026

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To provide safe, efficient and climate resilient transport connectivity and improve market accessibility along the Salyan-Bilasuvar road corridor.

Components

Component Name	Cost (US\$, millions)
----------------	-----------------------



Road Connectivity	89.09
Road Sector Sustainability	1.48
Local Development and Logistics	2.95
Project Management and Impacts	2.36

Organizations

Borrower:	Ministry of Finance
Implementing Agency:	State Roads Agency

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	95.88
Total Financing	95.88
of which IBRD/IDA	65.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	65.00
--	-------

Non-World Bank Group Financing

Counterpart Funding	30.88
Borrower/Recipient	30.88

Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2021	2022	2023	2024	2025	2026
Annual	0.00	11.75	25.00	20.50	5.00	2.75
Cumulative	0.00	11.75	36.75	57.25	62.25	65.00

INSTITUTIONAL DATA

**Practice Area (Lead)**

Transport

Contributing Practice Areas

Social Sustainability and Inclusion

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Moderate
2. Macroeconomic	● Substantial
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● Moderate
6. Fiduciary	● Moderate
7. Environment and Social	● Moderate
8. Stakeholders	● Moderate
9. Other	
10. Overall	● Moderate

COMPLIANCE**Policy**

Does the project depart from the CPF in content or in other significant respects?

☐ Yes ☒ No

Does the project require any waivers of Bank policies?

☐ Yes ☒ No



Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Not Currently Relevant
Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description

Loan Agreement: Schedule 2 Section 1 A (a) | Description: Borrower shall cause SAAAR to establish a PIU within SAAAR, with the staffing, functions, qualifications, and resources set forth in the Project Operational Manual. | Frequency: prior to the Project Effectiveness Date throughout the project.

Sections and Description

Loan Agreement: Schedule 2 Section 1 A (c) | Description: Borrower shall cause SAAAR to hire and thereafter retain throughout Project implementation an IPE, in a manner satisfactory to the Bank. for purposes of implementing Part 3 of the Project. | Frequency: no later than two hundred and forty (240) days after the Effectiveness Date throughout the implementation of Component 3 of the project.

Sections and Description

Loan Agreement: Schedule 2 Section 1 B | Description: The Borrower shall make the proceeds of the Loan available to SAAAR under a subsidiary agreement between the Borrower and SAAAR, under terms and conditions acceptable to the Bank. | Frequency: Continuous



Sections and Description

Loan Agreement: Schedule 2 Section 1 C | Description: The Borrower shall, and shall cause SAAAR to adopt and thereafter carry out the Project in accordance with the provisions of the “Project Operational Manual” satisfactory to the Bank. | Frequency: Continuous

Sections and Description

Loan Agreement: Schedule 2 Section 1 D | Description: The Borrower shall, and shall cause SAAAR to, ensure that the Project is implemented in accordance with the Environmental and Social Commitment Plan (“ESCP”), in a manner acceptable to the Bank. | Frequency: Continuous

Sections and Description

Loan Agreement: Schedule 2 Section 2 | Description: The Borrower shall furnish to the Bank each Project Report | Frequency: not later than one month after the end of each calendar semester, covering the calendar semester.

Sections and Description

Loan Agreement: Schedule 2 Section 1 D, 5 | Description: The Borrower shall, and shall cause SAAAR to, establish, publicize, maintain and operate an accessible grievance mechanism, to receive and facilitate the resolution of concerns and grievances of Project-affected people, and take all measures necessary and appropriate to resolve, or facilitate the resolution of, such concerns and grievances, in a manner acceptable to the Bank. | Frequency: Continuous

Sections and Description

Loan Agreement: Schedule 2 Section 1 D, 6 | Description: The Borrower shall, and shall cause SAAAR to, ensure that all bidding documents and contracts for civil works under the Project include the obligation of contractors, subcontractors and supervising entities to (a) comply with the relevant aspects of ESCP and the environmental and social instruments referred to therein; and (b) adopt and enforce codes of conduct that should be provided to and signed by all workers, detailing measures to address environmental, social, health and safety risks, and the risks of sexual exploitation and abuse, sexual harassment, and violence against children, all as applicable to such civil works commissioned or carried out pursuant to said contracts. | Frequency: Continuous

Sections and Description

Loan Agreement: Schedule 2 Section 1 A (b) | Description: The Borrower shall cause SAAAR to establish and thereafter operate and maintain a Project Procurement Evaluation Committee, with the composition and functions set forth in the Project Operational Manual. Frequency: | No later than thirty (30) days after the Effective Date, throughout project implementation.

Sections and Description

Loan Agreement: Schedule 2 Section 1 D | Description: The Borrower shall, and shall cause SAAAR to, ensure that the Project is carried out in accordance with the Environmental and Social Standards, in a manner acceptable to the Bank. | Frequency: Continuous

Conditions



I. STRATEGIC CONTEXT

A. Country Context

1. **Azerbaijan's economic advance since the early 2000s has been remarkable.** This was mainly driven by a rapid increase in oil and gas production. Economic growth was particularly robust between 2001-2010 averaging 15 percent per annum but fell substantially in the following decade to an average of approximately 1 percent per annum due to oil price volatility. Over the medium-term, Azerbaijan's economy will continue to be dominated by the hydrocarbon sector, with oil extraction expected to decline gradually and gas production to rise significantly. The strategy of the Government of Azerbaijan (GoA) envisages transformation from resource-oriented to a diversified, globally integrated, and innovation-led competitive economy. Longer-term growth will require diversification away from the oil sector, and development of human and physical capital and institutions; as articulated in GoA's development strategy "*Azerbaijan 2030: National Priorities for Socio-Economic Development*"¹. In regard to physical capital, a key focus is to improve connectivity by developing the main transport corridors and linking regional and local roads.

2. **The economic growth of Azerbaijan is clouded by the shocks of the COVID-19 pandemic and the associated oil price decline.** With the oil prices averaging US\$40-45/barrel, GDP growth has contracted in 2020, but is expected to rebound in 2021-22, as the shocks disperse. Economic activity contracted by 6.4 percent by the end of fourth quarter 2020 year-on-year basis, which brought annual growth in 2020 to - 4.3 percent. The dual shocks, exacerbated by the consequences of military conflict with Armenia, harm the economy through adverse impacts on industries and jobs, reduced trade and financial flows, deteriorating consumer confidence, and restrictions introduced to contain the spread of disease. In such conditions, critical objectives of the government in the short to medium perspective are to contain the pandemic and support negatively affected industries and households, particularly the bottom 40 percent.

3. **Since independence, development of the oil and gas sectors have given Azerbaijan new means of combating poverty and supporting the economic well-being of citizens.** Azerbaijan's GDP per capita rose from a post-independence low of just US\$310.3 in 1995 to US\$4,864 in 2019². Economic growth in Azerbaijan along with social transfers, and especially pensions and targeted social assistance³, helped to reduce poverty from 49 percent of the population in 2002 to 4.8 percent in 2019⁴. Unemployment in Azerbaijan stands at about five percent, and the disparity in labor force participation rate between women (54 percent) and men (75 percent) is of concern⁵. Although the country is rapidly urbanizing, 47 percent of the population reside in rural areas. Like in many other developing countries, poverty in Azerbaijan is concentrated in non-urban areas and there is a disparity in income between urbanized and rural areas.

4. **The project is located in a region of the country with a lower level of economic development.** The welfare and living standards of the population have not fully recovered after flooding in 2010. The total population of Azerbaijan is about 10.02⁶ million, and the project area, comprising the rayons of Salyan and

¹ Approved by the Decree # 2469 of the President of Azerbaijan dated February 2, 2021.

² WDI, Macro Poverty Outlook.

³ Almost two thirds of households receive some form of social transfer.

⁴ State Statistics Committee of Azerbaijan, https://www.stat.gov.az/source/budget_households/?lang=en

⁵ "Improving Employment Outcomes in Azerbaijan", Working Paper, Washington, D.C., World Bank, 2019.

⁶ From World Bank data, 2019. <https://data.worldbank.org/country/azerbaijan>.



Bilasuvär in the Aran economic region, has a population of about 250,000 of which 70 percent live in rural areas. Despite improvements in recent years, rural areas in Aran region lack well-paying jobs and business opportunities and have insufficient infrastructure and services. Nominal average monthly wages in Aran⁷ region were about 40 percent lower than the country average in the first quarter of 2020, while nominal per capita income was the lowest in the country. A significant part of the population in the region remain socially vulnerable.

B. Sectoral and Institutional Context

5. **Since the middle of the last decade (2005), modernizing the road transport system has been a key development priority of the GoA.** The condition of the road network was poor at the time of the collapse of the Soviet Union in 1991, and further deteriorated during the first years of independence due to economic problems, political instability, and lack of maintenance. Improved economic conditions and financial capabilities in the early 2000's enabled the Government to launch major investments to improve the road network. Implementation of a comprehensive road sector development program has enabled growth and supported the Government's agenda to diversify its economy and stimulate non-oil growth by improving access to domestic and international markets and promoting regional development. Resumed economic growth has also increased demand for road transportation services. The Government's development strategy "Azerbaijan 2030: National Priorities for Socio-Economic Development" and the "Strategic Roadmap for Logistics and Trade Development in Azerbaijan" both emphasize the importance of transport connectivity in establishing a competitive, diversified, and sustainable economic system in the country.

6. **Roads are the dominant transport mode in Azerbaijan.** Between 2008 and 2018, the share of freight transport by road increased from 48 to 65 percent; and passenger transport by road increased from 83 to 88 percent⁸. Over the last twenty years the increase in the vehicles in Azerbaijan has averaged about 12.5 percent per annum, and traffic on major road corridors has increased correspondingly. To sustain the important role of road transport in the economy, the GoA wishes to enhance its focus on the capacity and quality of the road network to ensure higher mobility, reliability, and safety.

7. **GoA embarked on a major highway reconstruction program in the early 2000's.** This started with improvements to the East-West corridor (M2 highway Baku to the Georgian border and M4 highway Baku to Yevlakh) and the North-South corridor (M1 highway Baku to the Russian border, and M3 highway Alat to the Iranian border highway). In parallel, rehabilitation works for other highways (M category roads) were launched. The completion of the program to reconstruct and rehabilitate all M category roads is scheduled for 2021. While upgrading of the highways is close to completion, reconstruction of lower road networks, and particularly the tertiary roads (Y category roads), is still underway. As indicated in Table 1, by the end of 2019, the share of roads in good and fair condition reached 83 percent for the secondary network, and 47 percent⁹ for local roads. The condition of the secondary roads is a road sector development gap that the proposed project will address.

⁷ Based on the Azerbaijan State Statistics Committee data, the nominal average per capita income in the Aran region in 2018 was 256.8 AZN (about US\$150)

⁸ State Statistics Committee of Azerbaijan, <https://www.stat.gov.az/source/transport/>

⁹ SAAAR, road condition survey results classified by International Roughness Index (IRI)



Table 1 – Condition of the Road Network in Azerbaijan¹⁰

Road Class	Condition of Roads					Percentage of Roads in Maintainable Condition
	Very Good	Good	Fair	Poor	Bad	
M (Magistral Roads, km) ¹¹	362	504	920	75	35	94.2%
R (Secondary Roads, km)	148	757	599	143	150	83.7%
Y (Tertiary Roads, km)	553	1038	1070	916	2074	47.1%
Total (km)	1063	2299	2590	1134	2259	63.7%

8. **Rehabilitation of the project road allows realization of Government plans to toll the parallel M3 motorway.** National legislation prohibits road tolling without availability of functional alternative roads, and the project road will provide that alternative route. Over time, this will reduce the burden on the state budget for maintenance of the corridor in line with the Maximizing Finance for Development (MFD) approach.

9. **The State Agency for Azerbaijan Automobile Roads (SAAAR) was established in 2017 as a public entity.** It is responsible for management of the highway and secondary road network, as well as key local roads; and reports directly to the President and Cabinet of Ministers. SAAAR manages major road construction centrally and uses its regional entities to carry out maintenance activities. In 2007, the Government reinstated the Road Fund (RF) as the account in the state budget to accumulate revenues from road user charges¹² and channel them for routine and periodic maintenance of the road network. According to the annual state budget for 2020, the Road Fund (RF) was expected to collect about US\$190 million, which is insufficient to provide road infrastructure and address the road maintenance backlog. To improve efficiency and sustainability in the sector, the Government is interested in adopting user pays principles and introducing road user charges (RUC), as a means to improve financial sustainability. In parallel, GoA wishes to reduce the rate of deterioration of the road network and recognizes that operational efficiencies could be improved through better enforcement of axle load controls.

10. **Government financing for development and maintenance of the road infrastructure since the start of the road network renovation program has exceeded US\$10 billion.** The World Bank (WB) has supported the Government's road sector program with three highway projects¹³, with a total investment of about US\$1.1 billion since 2001. The Bank cooperates with other development partners, such as the Asian Development Bank (ADB) and the European Bank for Reconstruction and Development (EBRD), which are also supporting the road sector in Azerbaijan through large-scale investment operations.¹⁴

¹⁰ Based on measurement of the road network condition in 2019, which included 1896 km of M roads (15km of M network was not covered), 1797 km of R roads (12km of R network was not covered), and 5651 km of Y roads (4299km of Y network was not covered). Total road network under the SAAAR currently includes 13671 km (1,911 km of M roads, 1,809 km of R roads, and 9,950km of Y roads).

¹¹ The project road is currently formally classified as M road. Given that the newly completed motorway running parallel to the project road has the same M category and better fits the definition of M category road, the classification of the project road is likely to be reconsidered and downgraded to R based on the definition of road categories.

¹² These mostly include revenues from road tax, vehicle registration fees, vehicle annual license fees, vehicle import excise taxes, international transit fees, and cargo and passenger transportation fees.

¹³ Highway Project, P040716 (US\$40 million), Second Highway Project, P09448 (US\$675 million), Third Highway Project, P118023 (US\$381.6 million)

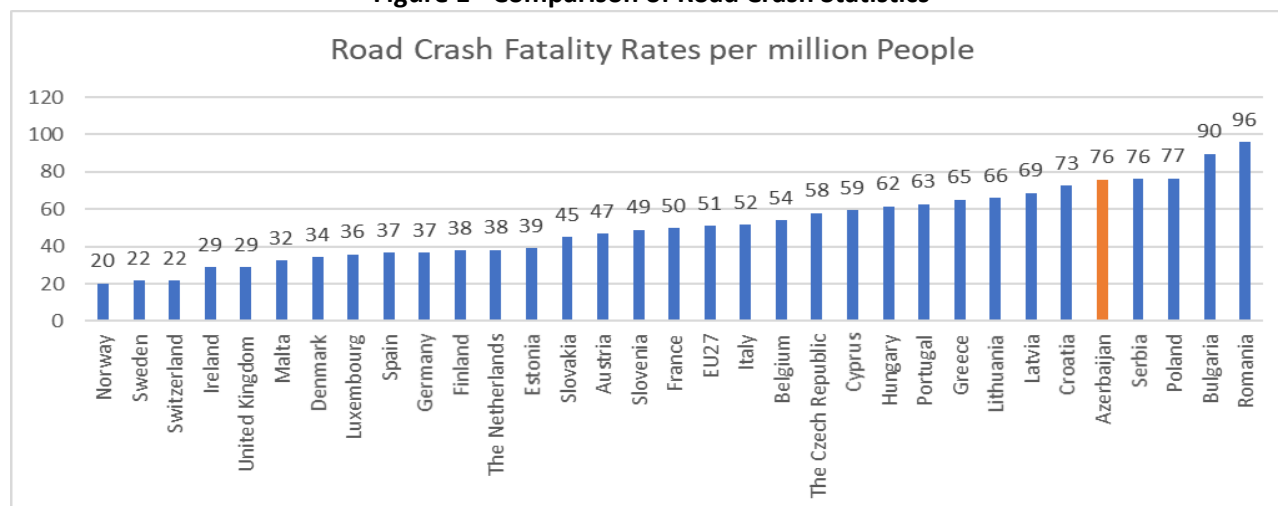
¹⁴ In the road sector, ADB supports the ongoing Second Road Network Development Investment Program, which is upgrading R32 Ujar-Zardab-Agjabedi road, 46km long section of M5 highway and R57 road between M5 and Sheki city. EBRD supports the ongoing Roads Reconstruction and Upgrading Project, which is financing an upgrade of Ganja-Gazakh-Georgian border section of M2 highway and rehabilitation of R18 Mingachevir - Bahramtapa and R42 Bilasuvar - Bahramtapa secondary roads.



11. **Modernization of road assets in Azerbaijan was accompanied by institutional improvements.** While the pace of these improvements, such as establishing effective asset management practices, ensuring financial sustainability, and enhancing the road safety framework,- so essential to modernize the road sector-, have not kept pace with road investments, important progress has been made in recent years. The WB financed Third Highway Project¹¹ supported the establishment of an effective maintenance system for the motorway network. Between 2012-2019, the Government's efforts resulted in the reduction of road accident fatalities in the country by about 30 percent¹⁵. To address the road safety issues, in 2018, the President of Azerbaijan approved a comprehensive reform-oriented State Road Safety Program for 2019-2023, which was the first initiated under the WB financed Second Highway Project¹³. Meanwhile, EBRD and ADB have provided financing for technical assistance (TA) across a range of areas, including road maintenance for secondary and local roads, and capacity building for road agency personnel.

12. **Road Safety needs further improvement in Azerbaijan.** Currently Azerbaijan has more fatalities from road crashes than many other countries in the wider region. See Figure 1¹⁶ which compares fatalities per million population in Azerbaijan in 2017 with those in Europe in 2019¹⁷. Substantial state investment in road infrastructure has brought benefits in terms of more efficient traffic management, and these measures have played an important role in reducing road traffic crashes in Azerbaijan in recent years, but further improvement is needed. The Government wishes to ensure that high quality technical standards are applied to improve roads and traffic safety.

Figure 1 - Comparison of Road Crash Statistics



13. **Climate change impacts and natural hazards are expected in the project area.** The project was screened for short and long-term climate change and disaster risks using the World Bank Climate and Disaster Risk Screening Tool, and the parts of Azerbaijan at greatest risk of floods are in the central and south-eastern, which encompasses the project region. The primary risks for the project road are associated with higher and more extreme temperatures leading to changes in precipitation patterns. In the project region, projected increases in precipitation is likely to exacerbate flood risk, which is already occurring. There is an estimated 10

¹⁵ State Statistics Committee of Azerbaijan

¹⁶ Road Safety Overview Azerbaijan. 2019, World Bank Group and the European Union Eastern Partnership.

¹⁷ Based on data from "Annual Road Safety Performance Index (PIN) Report, ETSC– National Statistics.



percent chance of potentially damaging earthquakes in the project area in the next 50 years. It is also estimated that there is 50 percent chance of weather that could support wildfires in the project area, and climate projections indicate a likely increase in the severity of fire, although the consequences of fire on connectivity is likely to be of short duration with low damage impact on the roads. Overall, the impacts on the project's physical infrastructure and assets is rated as moderate, since projections indicate rising temperatures, with increased flooding in the project area, and a small risk of an increase in geo-hazards.

14. Azerbaijan presented its Intended Nationally Determined Contribution (INDC) for the United Nations Framework Convention on Climate Change (UNFCCC) in 2015. The GoA stated that it believes that climate change is a potential threat for humanity and supported the adoption of the Global Agreement on climate change, as agreed at the UNFCCC 21st Conference of Parties held in Paris in 2015. By 2030 Azerbaijan targets a 35 percent reduction in the level of greenhouse gas (GHG) emissions compared to 1990 base year as its contribution to the global climate change efforts. Mitigation measures proposed for the Transport sector include use of environmentally friendly forms of transport including electric vehicles for public transport, electrification of railway lines, and an expansion of intelligent transport management system. Support for the latter issue is included in this project within Components 2.2 and 2.3

15. The Government has a key policy to help bridge the rural-urban divide. This targets regional development and revitalization of rural economies. Spatial disparities persist in Azerbaijan with growth centered largely in and around Baku. Rural areas are lagging behind, despite hosting a significant share of the population¹⁸. In 2019, agriculture employed 36 percent of the entire work force while generating only 7 percent of GDP. Azerbaijan has a strong comparative advantage in the production of fresh and processed fruits and vegetables but has not reached its full potential in this area¹⁹. Rural areas are beset by two mutually reinforcing trends - lack of both meaningful employment opportunities and sustainable business activity, and inadequate infrastructure and services. The recent economic shocks put particular pressure on the livelihoods and incomes of vulnerable population groups in less developed regions, a situation exacerbated by COVID-19. Agriculture and services are also considered as crucial sectors for the diversification of the economy, improving efficiencies and generation of jobs, but some road networks in poor condition result in higher vehicle operating costs and inefficiencies to logistics providers. The agricultural supply chain also needs additional cold storage capacities and more efficient production processes.

16. Azerbaijan's agricultural sector is highly fragmented, with many small farms. In Azerbaijan, agricultural producers are classified into three groups: family farms and households, agricultural enterprises, and private owners and entrepreneurs. By far the largest group consists of family farms, which comprise individual farmers that are market oriented, and 'households' with agricultural land producing mainly for home consumption.²⁰ Increasing domestic demand for potatoes, fruit, vegetables, meat, fish and eggs is being driven by income growth and urbanization trends. Due to their small-scale production many farmers have little access to markets, other than their local village. The food supply chain is poorly organized, transactions are mainly on ad-hoc basis and costly due to the prevailing small-scale nature of farming. A further challenge for the domestic agricultural supply chain is to comply with quality, food safety and environmental standards. The project will support these areas through advisory and training initiatives.

¹⁸ South Caucasus in Motion, The World Bank

¹⁹ Assessment of the Azerbaijan Transportation and Logistics Sector, Azerbaijan Investment Climate and Agribusiness Competitiveness Project, December 2018, World Bank Group, IFC.

²⁰ Market and competitiveness analysis of the Azerbaijan agricultural sector: an overview. Siemen van Berkum (Wageningen Economic Research), August 2017.



17. **Locally owned and operated businesses are expected to generate new development solutions to address rural challenges;** and Salyan in the project area, along with Baku, is a key market location. Currently, however, many locally-owned and operated businesses in the project area, are small agricultural producers who lack financial means and entrepreneurial skills to invest in their own processing and logistical facilities, such as cold storage²¹ or packing facilities, resulting in damaged produce, lost harvests and extra costs. In some regions, GoA has invested in storage facilities through the *State Fund for Support to Entrepreneurship*, but there are few in Aran region. Where these facilities are provided, they tend to be at a scale not suited for small producers, which predominate in the project region. Also, due to lack of rural infrastructure, farm-gate prices are low as producers cannot store their products for very long, forcing them to sell at the prevailing low price during the high season. The project area, Salyan-Bilasuvär, has one of the hottest climates in Azerbaijan, so being able to access cold storage while waiting for delivery to market, is particularly important.

18. **Supporting female producers in rural areas is one of the government's priorities.** Women's employment is mostly concentrated in low-paid sectors, and about 42 percent of female jobs are currently in agriculture, the largest sector for the employment of women, followed by services²². Thus, according to the UNDP Human Development Report for 2020, despite the progress compared to previous period, the PPP GNI²³ for women in Azerbaijan was significantly less than that for men.²⁴ The gender assessment conducted in the project areas confirmed a range of barriers inhibit both genders, but particularly women, from trading and entrepreneurial activities. Some of these barriers include poor roads and transportation to access markets, lack of adequate local market infrastructure and lack of credit and business management skills. These barriers, coupled with household responsibilities, mean that women sell their agricultural products at their doorsteps, often at a lower cost than at markets. Women of certain socio-economic status are particularly vulnerable. For example, according to the gender assessment conducted for the project, about 9% of the 11,187 households in Salyan and Bilasuvär districts are single women-headed households, and these households are poorer than most other households. Focus group discussions held with the project affected communities, found that women wanted opportunities to sell their products at markets and road-side sales points at a competitive price, and also wanted access to training and business advisory support to establish and run their businesses.

C. Relevance to Higher Objectives

19. **The proposed project is well aligned with the objectives of the World Bank's Country Partnership Framework (CPF) for Azerbaijan for FY 2016-20 (Report No. 95860-AZ, discussed by the Board on June 3, 2015).** The Systematic Country Diagnostic (SCD) which informed the preparation of the CPF, identified improving connectivity as a key priority, particularly in terms of developing regional and local roads networks, to reduce transport costs for products and people, by improving accessibility and speed of travel. The proposed project will contribute to the development of the secondary road network, by enhancing domestic connectivity for sustainable infrastructure services (CPF Focus Area 2, Objective 2.1) and supporting enhanced competitiveness of agriculture and rural development (CPF Focus Area 2, Objective 2.4). The proposed operation also aligns with the CPF's two cross-cutting themes of Gender and Governance, recognized as critical for effective management of resources, social inclusion, and accumulation of diversified human capital. Finally,

²¹ IFC, Assessment of the Azerbaijan Transportation and Logistics Sector, December 2018

²² Azerbaijan: Country Gender Assessment, Asian Development Bank, 2019

²³ PPP GNI is gross national income converted to dollars using purchasing power parity rates.

²⁴ United Nations Development Program (UNDP). 2020 data for the Human Development Reports - GNI female \$10,529; GNI male \$17,912; http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/AZE.pdf



the project directly responds to one of the key pillars of the World Bank's Gender Strategy and the ECA Gender Action Plan, which seek to promote women's economic opportunities. The project will support female farmers and entrepreneurs under Component 3.2, by providing access to advisory and training initiatives.

20. The project aligns with the World Bank Group's corporate goals to reduce extreme poverty and promote shared prosperity by improving the living standards of the bottom 40 percent. Connectivity efficiency will enhance access for retailers and buyers of agricultural products and create conditions to enable higher volumes of agricultural production and trade. Improved transport infrastructure will also make social services more accessible in the under-served rural areas of Aran region. Through improved access to education and health services low income and vulnerable communities will have wider opportunities for investment in human capital.

21. The project aligns with the Bank's COVID-19 Crisis Response Approach Paper. Pillar 3 (Ensuring Sustainable Business Growth and Job Creation) of the Bank's Response Approach Paper is particularly relevant, as its aim, like the project, is to revitalize and accelerate economic activities during the post-COVID-19 recovery period. The Bank's "COVID 19: Azerbaijan CPF Adjustment Note" paper (see Annex 6) also notes the importance of the project in addressing COVID-19 challenges under Pillar 3 and its role in revitalizing and accelerating economic activities in Salyan and Bilasuvar regions of Azerbaijan.

22. The project will support post-COVID-19 crisis recovery. Short and long-term jobs will be created - short-term employment opportunities will come through the road construction works, and long-term sustainable job creation, business growth and livelihood improvements will be generated from the local development and logistics component. Component 3 aims to improve the local and regional supply chains, through improved agri-logistics and market facilities, and business advisory and support services. The project also incorporates mechanisms to address the COVID-19 outbreak in the management of road construction works. This involves development of a COVID-19 emergency response plan aimed at project contractors and local communities, and measures to ensure that COVID-19 response protocols are included in the Contractors' Health and Safety Plans. Recognizing the context of COVID-19, the project will maximize the use of digital tools (such as web-based platforms and social media) for citizen engagement. The project also includes advisory and business support services such as digital literacy, e-commerce, and e-services platforms, which are relevant given COVID-19 social distancing requirements.

23. The project will address climate vulnerability. Engineering design standards and appropriate quality materials will be applied and designed-in to provide improved resilience to flooding, erosion, and temperature increases. Specifically, to mitigate the impact of flooding, the height of the road embankment will be raised over its entire length by 1 meter on average, and by over 2 meters in the most vulnerable places. Flood relief culverts will be provided in the most susceptible sections between Salyan and Bilasuvar to prevent the buildup of floodwaters, and the flow-capacity of some existing culverts is being increased. The mix design for the asphalt pavement and surfacing will be modified with polymers to improve its ability to withstand high temperatures. Further, rehabilitation of the project road will provide additional redundancy to the road network in this area, by providing an alternative road. The main route for north-south traffic is the new M3, whereas the project road is the old M3, which is being rehabilitated to provide better connectivity and access for local area traffic. In an emergency, either route may be used for diverted through traffic. Further information on addressing climate vulnerability and climate co-benefit analysis is provided in Annex 4.



II. PROJECT DESCRIPTION

A. Project Development Objectives

PDO Statement

24. To provide safe, efficient and climate resilient transport connectivity and improve market accessibility along the Salyan-Bilasuar road corridor.

PDO Level Indicators

25. The achievement of the PDO will be measured through the indicators provided in Table 2 below.

Table 2 – Proposed PDO Indicators

PDO Indicator	Assessed Aspect of PDO
Beneficiaries with enhanced access to road transport as a result of the project.	Improved transport connectivity and market accessibility (core Indicator)
Reduced delivery time of agricultural products from farm to market	Improved connectivity and market accessibility
Road safety improvements along M3 Salyan-Bilasuar road expressed as the Project Safety Impact (PSI) using the Road Safety Screening and Appraisal Tool	Safer connectivity
Reduced vehicle operating costs for medium trucks along the project road (percent)	Improved connectivity and efficiency (by enabling vehicles to travel more safely and quickly with reduced operating costs).
Climate resilience measures incorporated in the project road ²⁵	Improved climate resilience

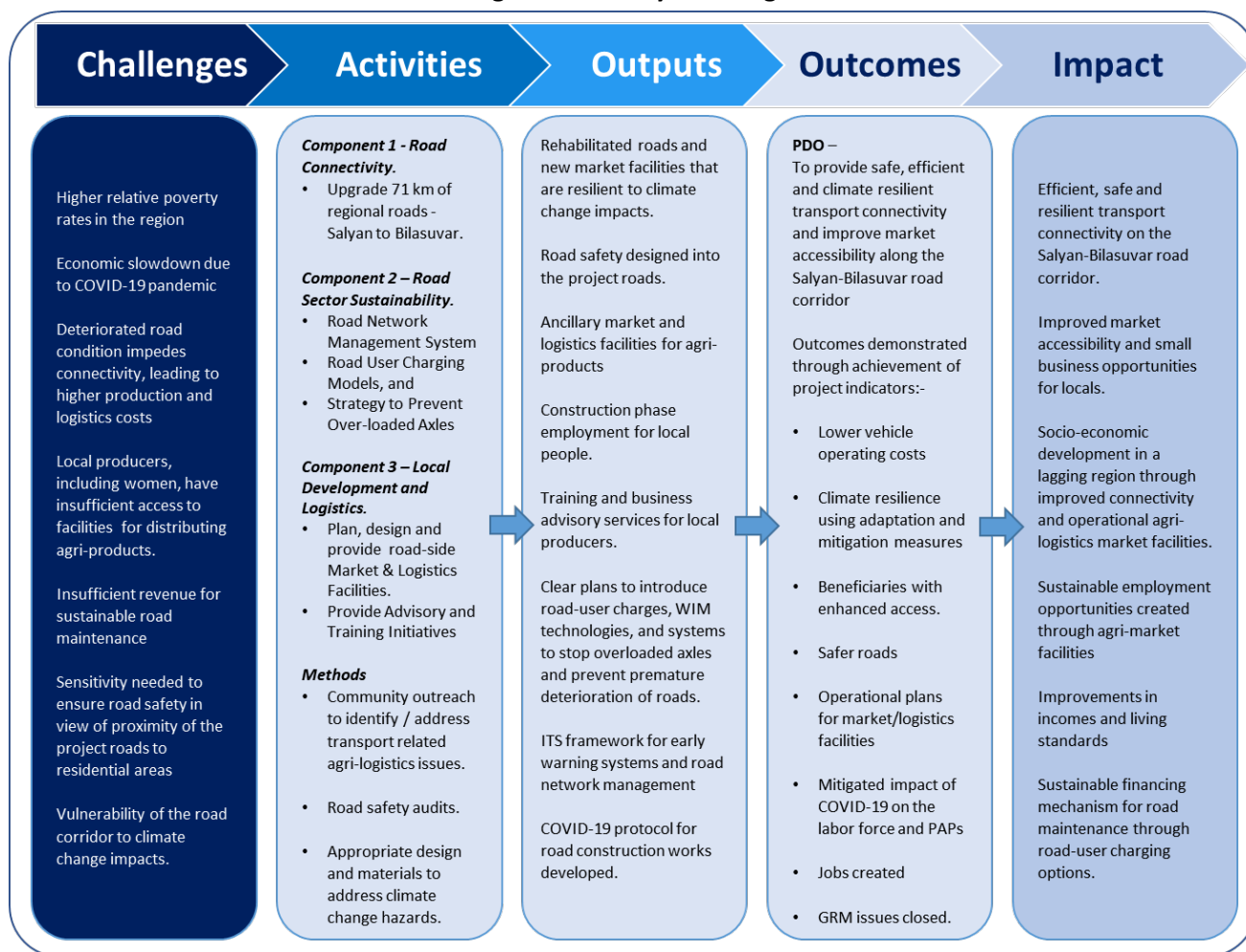
B. Results Chain

26. Figure 2 illustrates the project's results chain with links shown between the challenges addressed by the project, inputs financed, outputs, short-medium term outcomes, and expected long-term impacts.

²⁵ Refer Annex 4 for details of the proposed resilience measures.



Figure 2 - Theory of Change



C. Project Beneficiaries

27. **The project will primarily benefit residents and producers in Salyan and Bilasuvar rayons.** About 250,000 people live in these two rayons. Residents of Jalilabad, Masalli, Lankaran and other rayons located along the targeted road corridor are also important direct beneficiaries of the project. The number of beneficiaries from these regions and beyond is expected to further increase if the GoA pursues its plans for tolling of the new M3 motorway. The core project beneficiary region has predominately rural population. The share of rural population in Salyan and Bilasuvar regions is 67 percent and 77 percent, respectively. About 51 percent of the population in the project area are women. Communities in the targeted regions will benefit from improved accessibility (to markets, local economic development hubs, and important human development facilities, such as hospitals and schools); from enhanced road safety; and because of the reduced risk of connectivity disruption from flooding and other environmental hazards. The local communities across Salyan and Bilasuvar rayons will benefit from the short-term and long-term employment opportunities generated by road construction and subsequent road maintenance works. Institutionally, the proposed project will equip SAAAR with tools and capacities to improve physical and financial sustainability of the main road network in Azerbaijan through development of frameworks for e-tolling and axle load control. TA and capacity-



building support will help SAAAR to better manage COVID-19 challenges during the road construction works.

28. **The project will benefit the economic development of the region.** In particular, the improved connectivity to agricultural and logistics facilities is expected to boost opportunities for rural development and incomes of local beneficiaries. Agriculture is the primary economic sector in the area which cultivates crops and raise livestock for domestic markets. With a limited number and depth of local markets, ensuring that agricultural products reach the markets in the capital city of Baku is crucial for the economic development and livelihoods of local farmers. By improving road connectivity with climate-resilient measures, the proposed project is expected to reduce the transportation cost and time and road disruption risks for agriculture supply chains and logistics.

D. Project Components

29. **The project will finance three main streams of activities.** The first stream will comprise infrastructure investments in both roads and ancillary agri-logistics infrastructure. These investments will contribute to supporting connectivity and market accessibility to maximize the socio-economic development impact of the upgraded road. In the short to medium term, the combination of safe and resilient road infrastructure and improved logistics will create conditions for increasing productivity in beneficiary communities, new employment opportunities and household incomes. The second stream will support financial sustainability and operational efficiency within the road sector, through TA to introduce options for road user charges, thereby enabling the development of new sources of revenue for road maintenance and operations. Under this stream, TA will also be provided to help address deterioration of the road network through prevention of overloaded heavy vehicles. Having additional sources of revenue and operational improvements that provide for adequate levels of road maintenance and costs, will help guarantee the long-term sustainability of the road infrastructure provided under this project and other road investments. The third stream will support the design and arrangement of roadside facilities (logistics facilities, marketplaces, among others), and the provision of skills training to local entrepreneurs, in order to improve income-generating opportunities for local communities. The design of activities will be based on community mobilization to maximize the benefits for project beneficiaries. An important aspect of the design of roadside facilities will be development of a suitable management model, one that provides for equitable usage and addresses long-term maintenance and operation of the facilities.



30. The project consists of the following components, as shown in Table 3.

Table 3 - Project Components and Costs²⁶

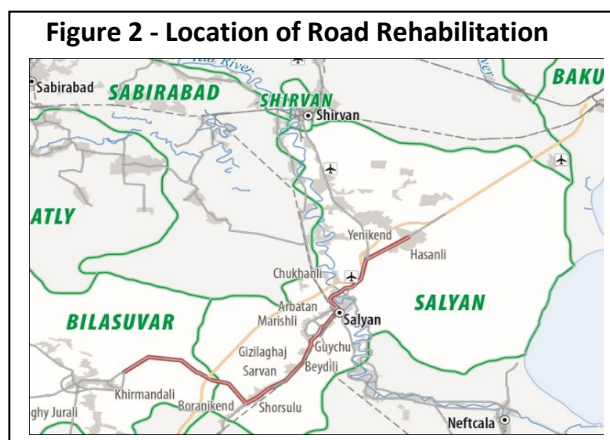
Project Components	Project Cost (Incl VAT) (USD million)	GoA Financing (Incl VAT) (USD million)	IBRD Financing (USD million)	Percent IBRD
Component 1 - Road Connectivity	89.09	28.69	60.40	80.00%
1.1 Regional Road Rehabilitation	85.79	27.63	58.16	
1.2 Construction Supervision	3.30	1.06	2.24	
Component 2 - Road Sector Sustainability	1.48	0.48	1.00	80.00%
2.1 Develop Road Network Management Systems	0.59	0.19	0.40	
2.2 Develop Systems for Road User Charging and Prevention of Over-Loading	0.89	0.29	0.60	
Component 3 - Local Development and Logistics	2.95	0.95	2.00	80.00%
3.1 Develop Road-Side Market and Logistics Facilities	2.07	0.67	1.40	
3.2 Advisory and Training Initiatives	0.88	0.28	0.60	
Component 4 - Project Management and Impact Assessment	2.36	0.76	1.60	80.00%
4.1 Support for Project Management	2.12	0.68	1.44	
4.2 Results Measurement and Impact Assessment	0.24	0.08	0.16	
Total	95.88	30.88	65.00	

Note –20% of the project costs, plus VAT, will be co-financed by the Government. VAT costs are estimated at US\$14.63 million equivalent.

Component 1 - Road Connectivity (estimated IBRD US\$60.4 million)

31. The Component will include the following sub-components:

- Sub-Component 1.1 - Regional Road Rehabilitation (estimated IBRD US\$58.16 million).** This will finance rehabilitation of selected sections of the M3 road (original alignment) between km 32.1 and km 103.3, as illustrated in Figure 3 and the maps in Annex 7. The project road provides an alternative route to the newer M3 motorway, which is a requirement for the motorway to be tolled in the future.
- Sub-Component 1.2 - Construction Supervision (estimated IBRD US\$2.24 million).** This subcomponent will finance costs of supervision activities as required for rehabilitation of the Component 1.1. road.



²⁶ 20% of the project costs, plus VAT, will be co-financed by the Government. VAT costs are estimated at US\$14.59 million equivalent.



32. **The Component is also expected to finance design of the priority road sector investments.** This activity will finance costs associated with implementation of technical design, environmental and social studies required for rehabilitation/reconstruction of the road sections to be identified by the government of Azerbaijan.

33. **The project road will be rehabilitated along the existing alignment as a second category road according to the national road classification.** The rehabilitation works will, inter alia, include the improvement of embankment and vertical alignment, replacement/construction of asphalt layers, bridges, water drainage pipes, the installation of side barriers, bus stops, road signs and markings along the selected sections of the M3 highway. Some sections of the road between km 54.4 and km 60.0 within the Salyan town boundaries are considered for lighter rehabilitation due to their existing technical characteristics.

34. **The design will ensure a resilient road to properly serve densely populated proximate residential areas and provide a safe alternative to the M3 motorway.** Specifically, the road will be upgraded with climate resilience measures including improving the capacity of drainage systems and adaptation of bridges to the flooding risks and other resilience solutions. The enhanced safety considerations will include improved shoulders, guardrails in the high embankment and super-elevation sections, and improved signage among others. Consultations on the road rehabilitation design will be conducted to ensure that needs of local residents are taken into account in the final design and that local communities can provide feedback particularly on aspects such as locations of bus stops, crossing areas, and/or other points of access.

Component 2 – Road Sector Sustainability (Estimated IBRD US\$1.00 million)

35. **Sub-Component 2.1 – Road Network Management Systems (estimated IBRD US\$0.40 million).** The sub-component is a TA to improve network management and operational efficiencies through application of intelligent transport systems (ITS). The TA will explore needs and opportunities for establishment of an integrated network-wide management system incorporating electronic tolling and heavy vehicle monitoring, and other ITS modules, including systems for early warning of weather and geohazards that will impact the road network. Component 2.1 will establish the context and architecture for Component 2.2.

36. **Sub-Component 2.2 – Develop Systems for Road User Charging (RUC) and Prevention of Overloading (estimated IBRD US\$0.60 million).** The sub-component is a TA to develop electronic systems for RUC through e-tolling and prevent premature road deterioration by controlling heavy vehicle overloading through weigh-in-motion (WIM) technologies. The study will consider feasibility, technology choice, mapping and localization of installations, regulatory issues, compliance and other aspects of application of electronic tolling and WIM systems to the road network of Azerbaijan. The study will, inter alia, explore options to differentiate toll tariffs, so vehicles that damage the roads most, or make more emissions, pay more. Outcomes of the study will contribute to the maximization of financing for development and sustainability of the road sector in Azerbaijan.

37. Although shown as two separate sub-components to provide clarity on the substance, the TA may be done as a single consultancy, as determined by the Procurement Plan.

Component 3 – Local Development and Logistics (Estimated IBRD US\$2.00 million)

38. **Sub-Component 3.1 – Develop Road-side Logistics and Market Facilities (estimated IBRD US\$1.40**



million). This sub-component will provide financing for (i) TA to guide the planning and development of road-side logistics and market facilities and (ii) pilot the implementation of identified small-scale investments. The investments will be identified and designed as a result of participatory planning with local communities and with the strong involvement of the local authorities. There are important synergies with the agriculture sector, and cross-sector support will be sought during implementation of this component. An important aspect will be to support development of a suitable model to manage the facilities, one that provides for equitable usage by beneficiary groups and addresses long-term maintenance and operation of the facility. The investments will improve existing roadside logistics and market facilities and/or create new ones along the project road in selected areas. Facilities considered as part of the sub-component interventions will involve, but not be limited to warehouses, cold storage, small markets and selling points, packaging, and distribution facilities.

39. **Sub-Component 3.2 – Advisory and Training Initiatives (estimated IBRD US\$0.60 million).** The sub-component will finance TA to develop a curriculum and then to deliver training and advisory services specific to small-scale agricultural producers and agri-logistics, operating in the project area; for example, businesses supplying organic food products from Salyan to Baku. Activities will include guidance on working safely and strategies to contain the spread of pandemics. There will be a particular focus on the needs of women growers and women entrepreneurs, but the training will be open to all in the project area communities. The sub-component will be tailored to the needs of local beneficiaries, such as farmers, cooperatives, and entrepreneur groups, to be identified through participatory needs assessment and community mobilization work. Advisory and training initiatives will also align with Component 3.1. Advisory services and training will cover such areas as community and cooperative development, business development, branding, digital literacy (e.g. in the use of the e-commerce and e-services platforms and applications), and the like. Some training activities will be tailored to the needs of women entrepreneurs and at least 50 percent of the beneficiaries will be women.

40. **Community mobilization and participatory planning will be conducted in the process of prioritizing investments under the third project component.** The participatory process will help to ensure that the needs of local residents and producers are fully considered. The type of investments and their location and features will be designed in response to the needs of the community, also considering medium and long-term development objectives and opportunities in the project area and related value chains.

Component 4: Project Management and Impacts (estimated IBRD US\$1.6 million)

41. **Sub-Component 4.1 – Support for Project Management (estimated IBRD US\$1.44 million).** The Component will support various project management functions including staff costs, incremental operating costs, financial audits, and the costs of individual consultant services to supplement project implementation and management capacity of the implementing agency. Financing for associated incremental operating costs may be applied towards:- training of SAAAR and Project Implementing Unit (PIU) staff, office space and equipment, office consumables, transport as required to implement the project and for site visits, consultant assistance to manage technical, safeguards and fiduciary aspects, interagency coordination. The component will also finance development of a COVID-19 emergency response plan mainly aimed at SAAAR, project contractors and local communities.

42. **Sub-Component 4.2 – Results Measurement and Impact Assessment (estimated IBRD US\$ 0.16 million).** The sub-component will finance activities related to, inter alia, results monitoring, completion reviews, and impact assessments to determine achievement of the project indicators.



E. Rationale for Bank Involvement and Role of Partners

43. **The World Bank is well positioned to support the Government in design and implementation of the project based on its extensive experience dealing with critical aspects of the road sector engagement in Europe and Central Asia (ECA).** In the South Caucasus region, the Bank shaped and designed projects²⁷ that address road safety and resilience, which are essential for a well-designed transport project and represent key features of the proposed project. In this regard, the Bank's engagement will ensure that the climate resilience and road safety considerations are properly integrated in the road design. The GoA is also interested in the Bank's technical inputs to ensure the use of reliable procurement, the fulfillment of the social and environmental framework, the employment of modern technical standards, and the execution of work with proper quality control. Finally, successful testing of the Local Development and Logistics activities, under Component 3, will benefit from the availability of cross-sector expertise in implementing similar projects, available through the Bank.

44. **The project will build on the World Bank Group's previous investments and studies in the transport and rural development sectors in Azerbaijan.** The Bank supported the Second Highway Project (P094488) and the Third Highway Project (P118023) financed reconstruction of sections of M3 (new alignment) and M6 highway corridors and some of the connecting local roads adjacent to the broader project area. The pipeline operation to modernize the North-South railway corridor²⁸ will, *inter alia*, improve railway logistics in the project region. The project will also benefit from the World Bank's long experience in rural development and community work in Azerbaijan through the rural investment projects and support to operations for Internally Displaced People (IDP). Finally, the project design benefited from findings of studies performed under the IFC's Azerbaijan Investment Climate and Agribusiness Competitiveness Project. In the above sense, the proposed project represents a natural continuation of the Bank Group's engagement in Azerbaijan.

45. **Ongoing transport sector projects in Azerbaijan provide valuable insight into managing road construction projects during COVID-19.** While the roadworks under the ongoing Bank financed road projects²⁹ were completed just prior to the start of the pandemic, the Bank made recommendations to the client about COVID-19 response planning and managing construction site activities. Within the new project the Bank will continue working with the government counterparts for incorporation of mechanisms to address the COVID-19 outbreak in the management of road construction works. This involves developing COVID-19 response protocols and including COVID-19 response in the Contractors Health and Safety Plans.

46. **Public sector financing is the appropriate vehicle for financing the rehabilitation of the project road.** The heightened economic slowdown following COVID-19 pandemic has restrained private investments in all sectors of the economy including transport. In addition, regional and local roads in Azerbaijan do not have sufficient traffic to justify concessioning of rehabilitation and management to the private sector. Overall, the project-supported connectivity improvements will facilitate private sector investments in the development of Salyan-Bilasuvar region for which RCDP will provide more efficient and safe access to markets. Moreover, the project design includes a dedicated component to boost private sector driven regional economic development and employment in the post-pandemic recovery period. This component aims to maximize the impact of

²⁷ Highway Project, P040716 (US\$40 million), Second Highway Project, P094488 (US\$675 million), Third Highway Project, P118023 (US\$381.6 million)

²⁸ Azerbaijan Railways and Logistics Modernization Program (P171946)

²⁹ Third Highway Project, P118023



improved connectivity on local development through investments into roadside logistics and market facilities in the project area. The project will also provide training and advisory services to local small-scale agricultural producers, agri-logistics enterprises, and other entrepreneur groups. These initiatives make the project highly consistent with the Bank's corporate objectives to prioritize private sector led development and promote the MFD approach.

47. **The road sector remains a key sector of interest and engagement for development partners.** In this regard, the implementation of the proposed project will be closely coordinated with development partners. During the past years, EBRD, ADB and the World Bank have been supporting SAAAR in implementation of major road construction and institutional development programs and have formed solid partnership. The proposed project is well aligned with the ongoing shift of the ADB's and EBRD's investment programs in Azerbaijan from upgrading highways to reconstruction of secondary regional roads. On the institutional side, all development partners' investment activities are accompanied by complementary initiatives to modernize road sector management and institutional setup. The ongoing regular consultations with EBRD and ADB will continue during project implementation to coordinate efforts and ensure higher development outcomes.

F. Lessons Learnt and Reflected in the Project Design

48. **Lessons learned from previous and ongoing sector engagement have been incorporated into the design of the proposed project.** The project primarily builds upon implementation experience of the Second and Third Highway Projects. Both of these projects included road investments in the project area. This provided important information and experience for selection of various technical parameters of the road design and materials. For example, the project has benefited from the practice-based information on designing road infrastructure in the areas with high water table and suitability of embankment materials from various borrow pits. The Project also benefits from implementation and supervision arrangement lessons of the previous operations. Building on the long experience in rural development and community work through the Azerbaijan rural investment projects and operations supporting Internally Displaced People, RCDP will use a local partner entity, such as non-government organization (NGO) to conduct the participatory planning necessary for the Component 3 activities and to guide the implementation of the agri-logistics facilities and the advisory and training activities.

49. **The lessons mentioned in the Implementation Completion and Results Reports (ICRs) of previous World Bank financed road projects have also been considered in the design of the project.** For example, the ICR of the Second Highway Project (P094488) mentioned the capacity of the project implementation unit among critical factors which impacted effectiveness of project implementation. In this regard, the implementation arrangements of the proposed project involve engagement of the experienced international advisor to enhance PIU's technical and contract management capacity and also transfer of international practice and knowledge to the road agency's local staff. The project organizational structure will be also strengthened with qualified staff to support management of E&S risks including at least one specialist in charge of environmental, labor, health and safety issues, and one specialist in charge of social and stakeholder engagement issues, to be responsible for ensuring full compliance with the ESSs, ESCP and other relevant instruments. Finally, to fill the capacity gap with implementation of the non-traditional for the road agency project activity on local development, the PIU is planned to be supported by the partner implementing entity with the respective specialized expertise. The implementation experience of previous operations also indicates on the importance of ensuring that the required reviews of engineering designs by government agencies are done prior to contract signing to avoid subsequent implementation delays. To avoid such negative



experiences, all engineering designs for the project road have been timely completed and necessary clearances obtained.

50. **Lessons from the various WB financed projects also highlight the critical importance of taking timely measures during project preparation and implementation to ensure the integrity of implementation processes, especially those with fiduciary implications.** Experience of these projects has shown that government commitment to transparency and reform is essential from the most senior management levels to the implementation department, and strong, responsible leadership is critical to maintaining momentum and commitment, and unnecessary personnel changes should be avoided to ensure continuity. To help ensure a robust implementation, the project will improve capacity throughout the bidding and contract management cycles (especially for high-value contracts) and strengthen overall procurement capacity and internal controls. In particular, training will be provided to PIU staff and bid evaluation committee members on how to identify and prevent risks such as conflict of interest, potential corrupt practices, collusion and fraud, with emphasis on the obligations of PIU staff and bidders under the Bank's Anticorruption Guidelines.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

51. **The institutional arrangements for the project will follow the experience of the previous Bank financed projects in Azerbaijan.** The Ministry of Finance (MoF) will be the borrower and the formal point of contact between the GoA and the World Bank on all financial and legal matters for the loan and represents the GoA in discussion on these matters. The Ministry of Economy (MoE) will serve as a government focal point exercising oversight over the implementation of the project. SAAAR has been assigned by the GoA as the project implementing agency. Annex 1 provides details on the implementation arrangements for the project.

52. **The project will be implemented by SAAAR supported by the existing PIU.** SAAAR is the implementing agency for the ongoing Third Highway Project, and managed previous WB operations, and several other IFI financed projects. SAAAR is familiar with the Bank requirements for financial management (FM), procurement and safeguards. The PIU is staffed with seasoned personnel, including engineering, procurement, and FM staff, and has significant capacity developed during implementation of past and ongoing operations. While the current PIU will continue implementation management for the new project, the number and skill composition of its staff will be adjusted³⁰ to the needs and design of the new operation. To fill the capacity gap of the PIU in implementing local development and community outreach activities, a specialized local implementing partner entity (IPE), will be engaged. The IPE will be a consultancy firm or an NGO, to conduct the participatory planning and to guide the implementation of the agri-logistics facilities and the advisory and training activities. This approach builds on experience in rural development and community work under the Azerbaijan rural investment projects and the way those projects support Internally Displaced People. In addition to PIU staff, the project will provide dedicated support for implementation of the project activities through hiring of individual consultants and technical experts.

53. **Project Operations Manual.** The project will be implemented based on the Project Operations Manual (POM), which will contain detailed information on the project implementation arrangements and processes,

³⁰ Refer Annex 1 for specific details.



including procurement, FM, disbursements, and safeguards aspects. Development of the POM, satisfactory to the Bank, will be one of the effectiveness conditions of the Project.

B. Results Monitoring and Evaluation Arrangements

54. **Monitoring and Evaluation (M&E) will be implemented through the PIU at SAAAR.** The PIU will submit bi-annual reports to the Bank covering implementation progress and key issues, in a format satisfactory to the Bank, within one month after the end of each calendar semester. The key instrument for evaluating the project will be the indicators set out in the Results Framework. The progress reports will also track progress in terms of disbursement of funds and include information on compliance with the Environmental and Social Framework (ESF), citizen engagement, and grievance redressal. Annual independent financial audits will be carried out. A midterm review of the project will be carried out within thirty months after project effectiveness to assess the status of project implementation, as measured against the performance indicators. The ICR will be prepared within six months after the closing date of the project.

55. **An independent impact evaluation will be conducted to better articulate the outcomes of the planned interventions at the household and community levels.** Besides measuring key transportation-related outcomes, the impact assessment will identify and measure the project impact on income growth of the poor and the bottom 40 percent for beneficiaries in the project area. Regular evaluations, timed to align with the indicator timing targets, will be conducted starting from project effectiveness involving surveys and other forms of data collection. This will measure impacts and livelihood improvements particularly among low-income groups, women, the disabled, and other vulnerable project beneficiaries. The methodological framework of analysis, scope for the study, and data collection techniques will be further refined during project implementation through Bank-funded technical assistance and in close consultation with the government counterparts.

C. Sustainability

56. **The project will support sustainability of the investment from several perspectives.** Roads are the primary transport infrastructure enabling trade, delivery of public services, governance, and tourism in the project region. The area is vulnerable to changing weather patterns as a result of climate change, including increasing temperatures, flooding, and fire risk. These require enhanced emphasis on resilience and sustainability of the project-finance road infrastructure. In this regard, the project will help integrate climate adaptation measures into the road design. The road construction will incorporate climate resilient design and engineering measures to withstand changing climatic conditions and to improve resilience of the infrastructure to the impacts of climate change. The project will also help mitigate risks of accessibility disruptions, such as floods, given that in an emergency situation, the project road can be used as an alternative alignment for traffic using the new M3 motorway (see also Annex 4).

57. **The project will support SAAAR with strategies to improve financial and physical sustainability of road assets.** The road sector budget is currently insufficient to meet all capital investment and maintenance needs. The project will support financial sustainability of the road sector, through TA to develop options for introduction of road user charges, thereby enabling the development of new sources of revenue for road maintenance and operations. In addition, the project will help address deterioration of the road network through improved management of axle load control. Identification of additional sources of financing for the road sector and operational improvements for enhanced management and protection of road assets, will help



guarantee the long-term sustainability not only for the project road, but also for the entire road network.

58. **Sustainability of the project road will also benefit from the ongoing road maintenance reforms supported by the WB financed Third Highway Project.** The project provided TA, facilities, and equipment for establishment of the new organizational structure for maintenance and operation of the main road network. The reforms helped to establish the corridor-based operation and maintenance principles implemented by the new regional maintenance units in accordance with the performance-based service level requirements. In particular, the technical assistance helped to enhance the capacity of the road agency with regard to contract management, monitoring and evaluation of the service level obligations, planning and budget responsibilities, road asset management and ensuring unobstructed and safe traffic via corridors. These changes represent substantial and important institutional reform, which are expected to significantly improve sustainability of road infrastructure and modernize road management and maintenance practices in the country.

IV. PROJECT APPRAISAL SUMMARY

A. Technical and Economic Appraisal

Technical Analysis

59. **The road section to be upgraded is the original M3 highway alignment connecting Baku to the southern part of the country.** The road used to serve as the main North-South corridor before construction of the new M3 motorway. The new motorway was constructed on a new adjacent alignment bypassing most settlements, including the city of Salyan, and was opened to traffic in 2018. The original M3 road remains in use and is critically important to serve densely populated proximate residential areas and provide a safe alternative to the motorway.

60. **The project will rehabilitate selected sections of the old M3 between Yenikend village and the regional center of Bilasuvar.** The existing single carriageway road was constructed during the Soviet era and has deteriorated beyond economic repair. The pavement has an average international roughness index (IRI) above 6, with many patch repairs. Five river and canal bridges along the route are in poor condition and do not meet current design load standards and will be replaced; and some existing culverts will be enlarged to increase water flow capacity. The existing Kur River bridge just north of Salyan is in good condition and is excluded from the works, it is having been repaired and strengthened under the Third Highway Project.

61. **Annual average daily traffic varies from 2,237 to 4,456 vehicles³¹.** At the time of the recent survey, traffic may have been less than usual due to Covid-19 restrictions in place at the time. The urban section in Salyan is the most heavily trafficked section.

62. **The upgraded road can be accommodated within the existing road corridor.** The technical solution adopts a cross-section with a 7.5 m wide carriageway with 3.75 m shoulders on each side, of which 0.75m is paved. This cross-section is consistent with standards in current use, and the alignment allows for a safe design speed of 90 km/h outside urban and village areas. A different technical approach will be adopted for the 2.5 km urban section at Salyan, where the existing pavement is in a better condition and full-depth reconstruction

³¹ From traffic counts done in September 2020.



can therefore be avoided. For more information on technical parameters, refer Annex 2.

63. **The project will improve the safety of the road for users and residents.** A design stage road safety audit has been conducted, and its findings addressed in the design of the project road. Additionally, the social cost of road safety cost has been assessed using the Road Safety Screening and Appraisal Tool (RSSAT), and the project safety impact (PSI) score³² indicates that the new road will improve road safety, and a reduction in fatal road traffic accidents is anticipated compared to a “do nothing” scenario. The results of the RSSAT assessment are included in the economic analysis and presented in Annex 5.

Economic Analysis

64. **Cost Benefit Analyses were done using Highway Development and Management Model (HDM-4).** This computes annual road agency and users’ costs for each project alternative over the evaluation period, comparing the proposed project investments with the conditions without such investments. The quantified net benefits computed by HDM-4 for the project road comprise vehicle operating costs, travel time costs, road maintenance costs due to the road improvements, road safety benefits, and CO₂ emissions costs. More details can be found in Annex 5.

65. **The HDM-4 analysis determined that the Project generates sufficient economic benefits to warrant the investments** The overall EIRR of the project is 15.1 percent and the Net Present Value (NPV) is US\$ 91.7 million, at 6 percent discount rate, corresponding to an NPV/Investment Cost ratio of 1.25. Vehicle operating costs benefits account for around 33 percent of the project benefits, travel time benefits for 65 percent, road safety benefits for 1 percent and reduction in maintenance costs for 1 percent.

66. **A sensitivity analysis shows that the project is economically justified even if construction cost is 20 percent higher or if the project benefits are 20 percent lower or both.** If construction costs were 20 percent higher and the project benefits were 20 percent lower, the overall EIRR would drop to 11.5 percent. Switching values analysis shows that construction costs would have to increase by 169 percent for EIRR to reach 6 percent.

GHG Accounting

67. **Total gross Carbon Dioxide (CO₂) emissions have been estimated.** Over the 22-year evaluation period under the “without-project” scenario, CO₂ emissions are estimated at 428,931 tons; and under the “with-project” scenario at 461,992 tons; resulting in a net increase of CO₂ emissions of 33,061 tons, or 1,503 tons per year. The increase in CO₂ emissions is attributed to the increase in travel speeds with the project. Further information is provided in Annex 5.

B. Fiduciary

Financial Management

³² The World Bank’s Road Safety Screening and Appraisal Tool (RSSAT) was expressly designed to provide a quick road safety screening during the concept and preparation stages and evaluate the safety effect of several cross-section designs options. This tool estimates the estimated change in road fatalities expressed in a Project Safety Impact (PSI).



68. **The FM arrangements for the project are acceptable to the World Bank and will be further strengthened within the POM.** SAAAR will oversee the project implementation, and the existing PIU within the SAAAR will assume FM responsibilities for the project and be the focal point for reporting arrangements with the Bank. A full set of unaudited interim financial reports (IFRs) will be submitted to the Bank quarterly for the life of the project. The reports will incorporate detailed information on amounts transferred to SAAAR from the Designated Account (DA), amounts used for the project, and any unused funds that are transferred from the DA. Locally developed software used for project accounting and reporting of the ongoing Third Highway Project will also be used for the Project. This software demonstrated solid historic performance in terms of financial transparency and reliability of the project data. The annual audited project financial statements will be provided to the Bank within six months of the end of each fiscal year, and at the closing of the project.

69. **Appropriate internal controls and flow of funds arrangements** were designed and instituted for the Third Highway Project will be used for this operation. These are essential in ensuring appropriate controls and monitoring of the flow of funds and will ensure that the funds will flow only for intended purposes. Relevant checks and evidence will be established to provide reasonable assurance in this respect. The respective controls and procedures are described in Annex 1 of this document and will be developed in detail in the financial part of the POM for the project. Preparation of the POM under the RCDP, including the FM manual, is an effectiveness condition of the Loan to ensure that respective procedures are in place before the commencement of project implementation.

70. **Designated Account.** Once the Project becomes effective a DA will be opened in an acceptable commercial bank, to which the funds will be transferred. A separate account in the Treasury (project account) will be opened to handle government's share of project expenditures. The DA and project account will be managed and operated by the PIU with the authorized signatories, which include SAAAR representatives.

71. **FM Risk assessment.** Overall, FM risk is Substantial due to the complexity and specifics of the project, but with the above described mitigation measures the risk is assessed as Moderate.

Procurement

72. **The project will use the Bank's new procurement framework and norms.** Procurement under the project will be carried out in accordance with the World Bank's "Procurement Regulations for IPF Borrowers: Procurement in Investment Project Financing Goods, Works, Non-Consulting and Consulting Services", dated July 1, 2016, as revised in November 2017, August 2018 and November 2020. A Project Procurement Strategy for Development (PPSD) is under preparation and will be finalized by appraisal. The extensive market analysis under the PPCSD will ensure that procurement processes are appropriate to the size, value, and risk of the project. During implementation the Bank team will be more involved in procurement and contract management of contracts with higher value and risks; and risks related to the procurement cycle will be carefully managed by utilizing the Bank's enhanced procurement principles. These measures combined with the improved and more structured project supervision techniques are expected to preclude some of the negative experiences that occurred in previous transport projects. The Bank will be paying particularly close attention to the procurement of large contracts to assure compliance with Procurement Regulations and World Bank's Anti-Corruption Guidelines (ACGs). ACGs dated October 15, 2006 (revised in January 2011 and as of July 1, 2016) will apply to this Project.



73. **A detailed procurement plan will be prepared for the project implementation.** Project procurement communication and Procurement Plan implementation will be performed through STEP (Systemic Tracking of Exchanges in Procurement) system.

74. **Project procurement will be conducted by the SAAAR PIU.** SAAAR has long experience implementing World Bank-funded projects with high-value and complex works contracts following the World Bank Procurement Guidelines. However, SAAAR has little experience of working with the new World Bank Procurement Regulations, but those risks will be mitigated by the measures described in paragraph 27 of Annex 1. Considering all these factors, Procurement Risk Rating for the project is assessed as “Moderate”. Details of the procurement arrangements are described in Annex 1.

C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

D. Environmental and Social

75. **Environmental and social risk is assessed as Moderate.** Potential risks and impacts are mostly associated with road rehabilitation works under Component 1. These impacts will not be significant and are likely to be temporary, reversible, limited to the project footprint and manageable by application of good construction practices and adequate mitigation measures. To manage such risks SAAAR has prepared an Environmental and Social Management Framework (ESMF) and Labor Management Procedures covering all project activities, including the rehabilitation of the secondary Salyan-Bilasuvur road, as well as TA to guide the planning and development of road-side logistics and market facilities (such as small warehouses, cold storage, packaging and distribution facilities, and selling points); and training and advisory services specific to small-scale agricultural producers and agri-logistics, operating in the project area. An Environmental and Social Management Plan (ESMP) has been prepared for the works on rehabilitation of the Salyan-Bilasuvur road within its original alignment.

76. **No land acquisition or resettlement impacts are expected under the project.** SAAAR has prepared a Resettlement Policy Framework (RPF) to guide compensation and rehabilitation activities for affected persons in the event that any resettlement impacts occur during project implementation. Labor influx is expected to be low as mostly local population will be engaged in the construction works. The sexual exploitation and abuse and sexual harassment (SEA/SH) risk is also assessed as low. The project will undertake proportionate SEA/SH prevention and mitigation measures such as introduction of Code of Conduct for all workers, awareness raising for project employees and communities, and establishment of SEA/SH sensitive grievance mechanism. Risks related to social exclusion and the potential inability of some population groups to equally benefit from the project will be mitigated with appropriate awareness and stakeholder engagement activities, and tailored measures to ensure the participation of potentially vulnerable and disadvantaged.



77. **SAAAR has prepared a Stakeholder Engagement Plan (SEP)**, which identifies potentially-affected stakeholders and other interested parties, including vulnerable and disadvantaged groups, and lists the engagement activities and accommodations to be put in place to ensure equitable information, opportunity to participate, provide feedback on, and partake in benefits from the project. The SEP also describes the grievance mechanism to be established under the project.

78. **SAAAR is well experienced, with a good track record in implementing projects under the Bank's safeguard policies.** Nevertheless, the PIU will require additional capacity, both in new staff and in training of existing staff, to be able to implement the project in accordance with ESF requirements.

79. **Citizen engagement.** The success of the Project, and particularly of Component 3 which seeks to enhance local economic opportunities, is predicated on the effective engagement and input of the residents of the targeted settlements, as well as the successful identification and involvement of local actors and institutions in shaping the design and implementation of specific activities to be supported under this component. Citizens will be engaged at all stages of the Project cycle. At the preparation stage, the Project has drawn on focus group discussions and interviews with household members (including women and youth), farmers, entrepreneurs, local government, and service providers in 13 out of the 28 villages in the project area. During implementation, the Project will employ public consultations, surveys, and community mobilization to engage citizens in defining and prioritizing needs for future investments in their areas. In the context and aftermath of COVID-19, RCDP will maximize the use of digital tools (such as web-based platforms, social media, among others) for consultation and engagement with citizens. SAAAR will involve skilled facilitators to carry out community mobilization activities under Component 3. All citizen engagement activities will be described in the POM, their costs will be budgeted and earmarked annually. The effectiveness of citizen engagement activities will be measured via a beneficiary feedback indicator included in the results framework.

80. **Gender Analysis.** The gender assessment conducted in the project areas confirmed that a range of barriers inhibit both women and men, but particularly women, from trading and entrepreneurial activities. Some of these barriers include poor roads and transportation to access markets, lack of adequate local market infrastructure and lack of credit and business management skills. Many of these barriers, coupled with household responsibilities, means that women sell their agricultural products at their doorsteps, often at a lower cost than at markets. Focus group discussions held with the project affected communities, found that women wanted opportunities to sell their products at markets and road-side sales points at a competitive price, and also wanted access to training and business advisory support to establish and run their businesses. Another important finding of the study was that local roadside markets often lack basic infrastructure, e.g. hygiene, lighting and cover to protect traders and their products from dust and rain and importantly, they lack secure trading stalls. As most of the small-scale traders in local markets tend to be women, they are the most impacted by the lack of adequate local market infrastructure.

81. **The findings of the gender assessment informed the project design.** Component 3 will inter alia improve existing roadside logistics and market facilities and/or create new ones along the proposed highway route in strategically located spots. The project will engage with municipalities to explore opportunities to



improve local transport in terms of its capacity and reliability and routes, to provide better access to local markets. These activities will help to create an enabling environment for women's economic opportunities, because providing greater access to transport and markets, and providing agri-business advisory services, disproportionately helps women; because in this region, women are most often involved in marketing domestically produced agri-products and mainly trade in local markets.

82. Sub-component 3.2 will finance TA to develop training and advisory services specific to small-scale agricultural producers and agri-logistics, covering such areas as community and cooperative development, business development, branding, digital literacy, e-commerce and e-services platforms, and the like. Using e-commerce and e-services platforms will help beneficiaries sell their products in a larger distribution area, and this is especially relevant given the recent COVID-19 lockdowns. E-commerce measures are seen as gender-smart and will particularly benefit women, by alleviating their transportation hurdles and time poverty. Importantly, the project will also provide access to suitable spaces for business and marketplace activities. The selection criteria will be carefully analyzed to ensure fair competition and will seek to ensure that at least half of the beneficiaries from training and business advisory services, are women including some from single-headed female households.

V. GRIEVANCE REDRESS SERVICES

83. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

VI. KEY RISKS

84. With reference to Table 4, the overall project risk is rated Moderate. Table 5 summarizes the key risks to achieving project results and development objectives.

**Table 4 - Systematic Operations Risk Rating (SORT)**

Risk Category	Rating
1. Political and Governance	Moderate
2. Macroeconomic	Substantial
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Moderate
6. Fiduciary	Moderate
7. Environment and Social	Moderate
8. Stakeholders	Moderate
Overall	Moderate

Table 5 – Risks Rated as Substantial and the Mitigation Measures

Key Risks and Mitigation Measures
Macroeconomic
COVID-19 and oil price slump have had negative impacts on macroeconomics in Azerbaijan. GDP growth has contracted and may have negative fiscal and monetary consequences with the corresponding implications for the project. Based on the previous experience, the client might need to manage exchange rate fluctuation risks through large civil works contracts. Potential risks associated with the co-financing ability by the government will also need to be carefully managed by keeping the project financing arrangements at low-risk level. Significant foreign exchange cushion of the country provides it with some safety margin to protect against external and internal shocks in the short to medium term period.



VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Azerbaijan

Regional Connectivity and Development Project

Project Development Objectives(s)

To provide safe, efficient and climate resilient transport connectivity and improve market accessibility along the Salyan-Bilasuvar road corridor.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Improved connectivity and markets accessibility							
Beneficiaries with enhanced access to road transport as a result of the project (Text)		see below					see below
Direct Beneficiaries (number of daily road users) (Number)		0.00	0.00	1,000.00	3,500.00	7,000.00	7,000.00
Indirect Beneficiaries – The number of persons living within two km of the M3 project road. (Number)		0.00	0.00	15,000.00	50,000.00	50,000.00	100,000.00
Improvement in the delivery time of agricultural products from farm to market (Minutes)		80.00					70.00
Safer connectivity							



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Road safety improvements along M3 Salyan-Bilasuvar road expressed as the Project Safety Impact (PSI) using the Road Safety Screening and Appraisal Tool (Number)		1.00	1.00	1.00	0.97	0.93	0.86
Improved Efficiency and Connectivity							
Reduction in vehicle operation costs on project roads for medium trucks along the project road (Percentage)		0.00	0.00	2.00	5.00	11.00	11.00
Improved climate resilience							
Climate resilience measures incorporated in the project roads (Text)		see below					see below
Project roads improved with additional climate resistance measures addressing flooding risk (Kilometers)		0.00	0.00	4.00	20.00	56.00	56.00
Upgraded bridges with increased flow capacity (Number)		0.00	0.00	1.00	3.00	6.00	6.00



Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Road Connectivity							
Roads rehabilitated (CRI, Kilometers)		0.00	0.00	5.00	25.00	70.00	70.00
Roads rehabilitated - non-rural (CRI, Kilometers)		0.00	0.00	5.00	25.00	70.00	70.00
COVID-19 protocols developed, included in the Contractors’ Health and Safety plans, and implemented. (Yes/No)		No	No	Yes	Yes	Yes	Yes
Jobs for local people engaged in construction of project roads (person-months cumulative) (Number)		0.00	0.00	1,000.00	3,000.00	4,000.00	4,000.00
Road Sector Sustainability							
Road user charges and axle load control options are identified and a decision is made by the SAAAR (Yes/No)		No	No	No	Yes	Yes	Yes
Pre-opening Road Safety audit done and recommendations implemented (Yes/No)		No	No	No	No	Yes	Yes
Local Development and Logistics							
Number of community members provided with training and business advisory services to start their micro businesses (Number)		0.00	0.00	80.00	150.00	300.00	300.00
Out of which at least half are women (Number)		0.00	0.00	40.00	75.00	150.00	150.00



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Out of which at least 20% of women are heads of single headed female households (Number)		0.00	0.00	8.00	15.00	30.00	30.00
Number of community members supported with training, business advisory services and/or hard assets start their micro businesses. (Number)		0.00	0.00	0.00	20.00	60.00	100.00
Out of which at least half are women (Number)		0.00	0.00	0.00	10.00	30.00	50.00
Out of which at least 30% of women are heads of single headed female households (Number)		0.00	0.00	0.00	3.00	10.00	15.00
Management/operation arrangements for logistics/market facilities are formulated and put in place (Percentage)		0.00	0.00	0.00	10.00	50.00	100.00
Project Management and Impacts							
Grievance Redress Mechanism complaints addressed and closed out (Percentage)		0.00	100.00	100.00	100.00	100.00	100.00
Percentage of beneficiaries in target communities who believe that the project has established effective engagement processes (Percentage)		0.00	0.00	70.00	70.00	70.00	70.00



Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Beneficiaries with enhanced access to road transport as a result of the project	The indicator measures the number of people benefiting from enhanced road transport resulting from the improvements to project roads. The indicator captures both drivers and passengers of road vehicles (direct beneficiaries) and those living locally to the road and benefiting from the economic and social benefits of the Project (indirect beneficiaries).	Annually	Project Progress Reports	Direct Beneficiaries - Traffic surveys at three locations along the main project road to obtain an annual average daily traffic (AADT) total for all classification of vehicles. This total is multiplied by two to reflect the average occupancy of each vehicle. Indirect Beneficiaries – The number of persons living within two km of the M3 project road.	SAAAR
Direct Beneficiaries (number of daily road users)					
Indirect Beneficiaries – The number of persons living within two km of the M3 project road.					



Improvement in the delivery time of agricultural products from farm to market	The indicator measures the travel time for agricultural producers around Yenikend to deliver grape products to the regional market in Bilasuvar city	Annually	Project reports	The TA activity will be monitored and progress identified by the submission and approval of the deliverables stated in the consultant's contract.	SAAAR
Road safety improvements along M3 Salyan-Bilasuvar road expressed as the Project Safety Impact (PSI) using the Road Safety Screening and Appraisal Tool	An assessment of the Project's impact on road safety on the M3 project road	Biannually	SAAAR	The Bank's Road Safety Screening and Appraisal Tool was applied to the Project before approval. Inputs include traffic, accident rates, and the nature of physical changes being made to the project road, and the outcome is expressed in a Project Safety Impact (PSI) figure. The methodology requires the RSSAT to be periodically rerun, using the current data.	SAAAR
Reduction in vehicle operation costs on project roads for medium trucks along the project road	The indicator captures the impact of the road improvements on the cost of operating a typical medium-sized commercial	Annually	Project Progress Reports	Vehicle Operating Costs are expressed as USD per vehicle-km, as calculated by the Bank's HDM-4 Road	SAAAR



	truck. Such operating costs include fuel, tires, maintenance, crew time and depreciations			User Costs Model version 3, Road – “Calculate Road User Costs” option. Current variables should be used for traffic and road condition and	
Climate resilience measures incorporated in the project roads	Climate resilience is incorporated in the design of the road, and associated structures, and is realized as they are built. These measures included increased flow capacity of bridges and culverts, and raising the vertical alignment of the road.	Annual	Project Progress Reports	The SAAR, with the assistance of the supervising consultant, will identify the climate resilient measures in the design and verify they are implemented during the construction phase	SAAAR
Project roads improved with additional climate resistance measures addressing flooding risk					
Upgraded bridges with increased flow capacity					

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Roads rehabilitated		Annually	Project Progress Reports	This indicator captures progress with Component 1.1	SAAAR



				and measurers the length of road rehabilitated by the Project.	
Roads rehabilitated - non-rural					
COVID-19 protocols developed, included in the Contractors' Health and Safety plans, and implemented.	Contractors will be mandated to prepare and implement approved Covid-19 protocols. This requirement will be included in the bidding document and the contract(s) for the Works contracts.	Continuous	Project Progress Reports	The approval process for the Health and Safety plan will identify whether the protocols have been developed. Continuous monitoring of the work contractor(s) by the supervision consultant will record the implementation of protocols.	SAAAR
Jobs for local people engaged in construction of project roads (person-months cumulative)	Contractors will be mandated to engage local staff where possible. This requirement will be included in the bidding document and the contract(s) for the Works contracts. This indicator captures the efficacy of the Project in promoting local participation.	Biannually	Project progress reports	Progress against this indicator is to be measured by recording the number of full-time staff (and part-time staff pro-rata) who live in the Salyan, Bilasuvar and the immediately adjacent rayons. This indicator is cumulative and reflects both the number of local staff	SAAAR



				and the length of time they are employed. Staff employer by subcontractors are also to be included.	
Road user charges and axle load control options are identified and a decision is made by the SAAAR	The development of road user charging models and the development of systems to prevent over-loaded axles are TA activities following on from a TA to consider road network management systems.	Annual	SAAAR	Progress will be measured by the submission and approval of the deliverables stated in the consultants' contracts and decision made on them by SAAAR	SAAAR
Pre-opening Road Safety audit done and recommendations implemented	SAAAR will mandate a consultant to undertake a pre-opening road safety audit and verify incorporation of recommendations	At the end of road construction contract	Project progress reports	The submission of an audit report to the SAAAR by the consultant will show indicate the audit's completion. Reporting by the consultant after that will record any subsequent implementation of recommendations.	SAAAR
Number of community members provided with training and business advisory services to start their micro businesses	This indicator measures number of community members receiving trainings and business advisory	Biannual	Project Progress Reports	Progress against this indicator is to be measured by recording the number of persons	SAAAR



	services to enhance or start their entrepreneurial activities			supported, disaggregated by gender. The monitoring shall also identify those women that are heads of single headed female households.	
Out of which at least half are women					
Out of which at least 20% of women are heads of single headed female households					
Number of community members supported with training, business advisory services and/or hard assets start their micro businesses.	This indicator measures number of community members who start their micro businesses with the project support including provision of training, business advisory support and/or hard assets. The latter can include support with machinery and equipment, and space for business.	Biannual	Project Progress Reports	Progress against this indicator is to be measured by recording the number of persons supported by the provision of training, business advisory support and/or hard assets, disaggregated by gender. The monitoring shall also identify those women that are heads of single headed female households.	SAAAR
Out of which at least half are women					
Out of which at least 30% of women are heads of single headed female					



households					
Management/operation arrangements for logistics/market facilities are formulated and put in place	Management/operation arrangements for all logistics/market facilities to be improved or created under the project will be formulated and put in place	Biannually	Project progress reports	Management/operation arrangements for all the logistics/market facilities to be created or improved within the project will be formulated by a consultant contracted by SAAAR and put in place. The process will be measured in percentage of the logistics/market facilities and progress identified based on the submission and approval of the deliverables stated in the consultant's contract.	SAAAR
Grievance Redress Mechanism complaints addressed and closed out	A grievance redress mechanism will be established for the Project. This activity will be undertaken by a SAAAR staff or consultant. The logbook of grievances will be	Biannually	Project progress reports	The PIU will monitor the progress and outcomes of all grievances and report the data	SAAAR



	regularly updated in terms of status of grievances.				
Percentage of beneficiaries in target communities who believe that the project has established effective engagement processes	Identifying the views of the target community will be undertaken by a consultant contracted to SAAAR and monitored by PIU staff.	Annually	Project Progress Reports	Sampling by annual questionnaires administered in the course of community mobilization	SAAAR



ANNEX 1: Implementation Arrangements and Support Plan

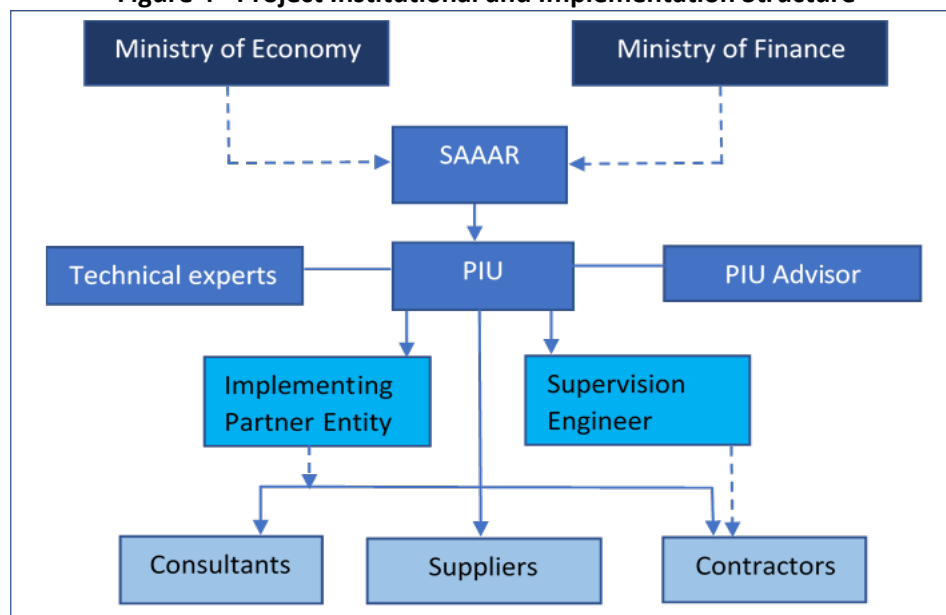
COUNTRY: Azerbaijan

Regional Connectivity and Development Project

1. **The institutional arrangements for the Regional Connectivity and Development Project (RCDP) will follow the experience of the previous Bank financed projects in Azerbaijan.** The Ministry of Finance (MoF) will be the Borrower and the formal point of contact between the GoA and the World Bank on all financial and legal matters for the loan and represents the GoA in discussions on these matters. The Ministry of Economy (MoE) will serve as a government focal point exercising oversight over the implementation of the project. The Ministries of Economy and Finance are also expected to be involved in the project implementation through participation in the procurement evaluation committee to be established for the project. SAAAR has been assigned by the GoA as the project implementing agency and will establish a Project Implementing Unit (PIU). To fill the capacity gap of the PIU in implementation of local development and community outreach activities, the implementation arrangements will include engagement of a specialized local implementing partner entity (consultancy firm or non-government organization). Figure 4 below graphically illustrates the institutional and implementation arrangements for the proposed project.

2. **Independent contract supervision and monitoring will be provided by consulting firms** engaged for the full term of the construction contracts. Primarily, they will administer the contracts, certify payments, and ensure compliance with the quality and ESF standards.

Figure 4 - Project Institutional and Implementation Structure

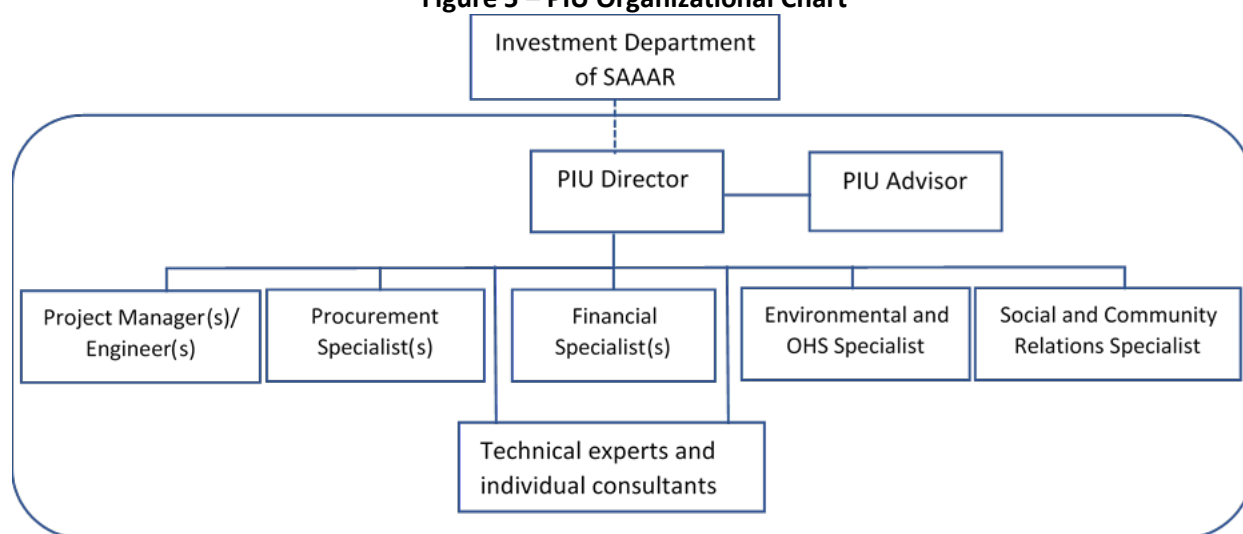


3. **The project will be implemented by SAAAR supported by the existing PIU.** SAAAR is an implementing agency for the ongoing Third Highway Project, which also managed previous WB operations, as well as several other IFI financed projects. SAAAR is familiar with the Bank requirements in terms of financial management (FM), procurement and safeguards. The PIU is staffed with seasoned personnel, including engineering,



procurement, and FM staff, and has developed significant capacity during implementation of past and ongoing operations. In the recent few years, the PIU engaged a Deputy Director, a Safeguards Specialist responsible for social and environmental issues, and a Monitoring and Evaluation Specialist. Additionally, an international advisor has been hired to support PIU in implementation of daily operations, contract management, and coordination of technical assistance (TA) activities and has contributed to improved portfolio performance over recent years. This same PIU arrangement will be continued for this Project, however, the number and skill composition of its staff will be adjusted to the needs and design of the new operation. In particular, the PIU will be strengthened with additional capacity to support management of environmental and social risks, labor, health, and safety requirements, as well as proactive community relations. In addition to PIU staff, loan financing will be used to engage individual consultants, as required, to assist with the implementation of the road sector sustainability and local development and logistics.

Figure 5 – PIU Organizational Chart



4. **Project Operations Manual.** The project will be implemented in accordance with a Project Operations Manual (POM), which will contain detailed information on the project implementation arrangements and processes, including procurement, FM, disbursements, and safeguards. Development of the Project Operational Manual satisfactory to the Bank will be one of the effectiveness conditions of the project.

Financial Management and Disbursement Arrangements

5. **FM Staffing.** The existing PIU has all core functions appropriately staffed and the capacity of the unit can be assessed as sufficient. The FM staff to be assigned to RCDP are qualified and have prior experience in implementation of World Bank projects. Terms of Reference for the FM staff with detailed description of duties will be included in the current POM. SAAAR will assign its accountant to provide supplementary expertise and time, as will be required, to support the PIU on accounting, reporting, and disbursement procedures. The capacity and qualifications of the PIU FM staff to perform the required tasks will be maintained via targeted trainings throughout project implementation.

6. **Planning and budgeting.** The PIU has adequate capacity for planning and budgeting in terms of human resources, availability of quality information and information technology systems. Staff has experience in



budget preparation, and variances between actual versus budgeted figures will be monitored on a regular basis, appropriately analyzed, and followed up. The PIU will prepare a single budget for all project activities. The PIU will collect information on the budgeted figures from the SAAAR departments. The SAAAR is assessed to have sufficient capacity to perform the above tasks and prior experience in coordinating similar tasks.

7. **Information systems.** The SAAAR uses the Treasury system for its accounting and reporting. The Treasury system was assessed by the World Bank's diagnostic work and found to be sound with reliable reporting and ex-ante controls. The locally developed software used for project accounting and reporting of the ongoing project, will be used also for the new project as it is assessed to be beneficial for financial transparency and reliability of the project data given the complexity of the project and a need to consolidate all project information in one place.

8. **Accounting policies and procedures.** The accounting books and records will be maintained on cash basis with additional information on signed contracts. Project financial statements will be presented in USD. The PIU will apply acceptable accounting procedures and internal controls including authorization and segregation of duties for the project. To improve safeguard of assets, additional internal control procedures will be instituted (for example, reconciliation between accounts and records, reconciliation of cash and bank balances) and described in the financial management manual (which will form part of the POM, whose preparation is an effectiveness condition of the Loan). The financial manual will set out the FM and internal control policies and procedures and will guide PIU FM staff and minimize the risk of errors and omissions, as well as delays in recording and reporting. These written standards will also clarify responsibilities, including level of authority, clear control over cash, and bank accounts, and will ensure timely and accurate financial reporting.

9. **Financial reporting and monitoring.** Project management-oriented interim unaudited interim financial reports (IFRs) will be used for project monitoring and supervision. The format of the IFRs will be confirmed during negotiations. The reports will include consolidated financial information on all project funds. The reports will also incorporate detailed information on amounts transferred to the PIU, amounts paid for project needs and any unused funds which were transferred from the Designated Account. The PIU will produce a full set of IFRs for each calendar quarter throughout the life of the project. They will be due 45 days after each quarter ends. The IFRs will comprise the following reports presented in the agreed format: (a) Statement of Sources and Uses of Funds; (b) Uses of Funds by Activity; (c) Designated Account statement; (d) Unit of Output by Activity; and (e) Narratives to the reports. The accounting for the project is cash basis with additional information provided for commitments on signed contracts.

10. **Internal controls.** An adequate system of internal controls and procedures was instituted as part of the ongoing project. Such system is assessed as reliable and will continue to be applied to RCDP. The current management control framework developed in the POM for the World Bank financed Third Highway Project will be replicated for RCDP and included in the RCDP POM. Preparation of the POM under the RCDP, including the FM manual, is an effectiveness condition of the Loan to ensure that respective procedures are in place before the commencement of project implementation. Key internal controls to be applied for the project include (a) appropriate authorizations and approvals, (b) segregation of duties (with no single person having the responsibility for all phases of transaction), (c) regular reconciliations between records and actual balances, as well as with third parties, and (d) complete original documentation to support project transactions. In addition, the financial department of the SAAAR performs regular checks of transactions under



the project, including invoices verification, bank statements reconciliation and monitoring of contracts execution.

11. **External audit.** The PIU will follow the audit requirements of the World Bank-. The SAAAR is audited by the Azerbaijan Chamber of Auditors (CoA) as required for any Government entity. However, as the capacity of the CoA for conducting efficient financial audit is still quite limited, the project's financial statements will be audited in accordance with the terms of reference acceptable to the Bank by a private sector audit company acceptable to the Bank. The audit reports will be submitted to the Bank within six months after the end of the period audited. The annual cost of the audits of the project will be covered by the project funds.

12. **Flow of funds and disbursement arrangements.** The transaction-based disbursement method will be used for the Project. Once the Project becomes effective a DA will be opened in the acceptable commercial bank, to which the funds will be transferred. A separate account (project account) in the treasury within the MoF will be opened to handle government's share of project expenditures. The DA and project account will be managed and operated by the PIU with the authorized signatories, which include SAAAR representatives.

13. **The procedures relating to the flow of funds,** including paths for authorization and approval of payments will be described in detail in the FM section of the POM. The procedures will clearly describe all steps of the process, as well as authorized signatories for administering the account funds. Bank Statements showing turnover and balance on the account will be submitted on a daily basis. The PIU will include balances on all project related accounts in the quarterly IFRs.

14. **The Designated Account ceiling** will be indicated in the Disbursement and Financial Information Letter (DFIL) to be agreed on at negotiations. Applications for replenishment of the DA will be submitted at least quarterly or when one-third of the amount has been withdrawn, whichever occurs earlier. Documentation requirements for replenishment will follow standard Bank procedures as described in Disbursement Handbook. Bank statements of the DA, which have been reconciled, will need to support all replenishment requests.

15. **Disbursement Categories.** The withdrawal of proceeds from the IBRD loan for RCDP, will be made per the schedule in Table 6 below.

Table 6 – Schedule of Disbursement Categories

	Amount of the IBRD Loan Allocated (Expressed in USD)	Percentage of Expenditures to be Financed (Net of VAT)
(1) Goods, Works, Consultant Services including Audit, Training and Incremental Operating Costs for the Project.	65,000,000	80%
TOTAL AMOUNTS	65,000,000	

16. **Government Counterpart Funding.** The Government's contribution will be 20 percent of the cost of the project, and the Government will also finance the VAT, which is a further 18 percent. The Government contribution will be disbursed from budget allocations through the Treasury system in the Ministry of Finance.



Funds would be released to finance expenditures as they are incurred.

17. **Supervision plan.** During the project implementation, the World Bank will supervise the project's FM arrangements in two main ways: (a) by review of the project's unaudited IFRs for each calendar quarter, as well as the project's annual audited financial statements and auditor's management letter and (b) by performing on-site supervision and reviewing the project's FM and disbursement arrangements to ensure compliance with the World Bank's minimum requirements. The supervision may include the PIU within the SAAAR, and a random sample of final beneficiaries as deemed necessary. Supervision will be performed by the World Bank accredited FM specialist.

Procurement Arrangements

18. **Project Procurement Strategy for Development (PPSD).** The PPCSD has been developed by the Borrower in consultation with the Bank team and is based on a market analysis. A detailed Procurement Plan was prepared for the whole project life based on the PPCSD's outcome. A market analysis was carried out for the different packages of procurement and, based on the findings, decisions on packages and lots have been made for works to ensure adequate participation of bidders. Consultancy contracts are also framed based on market research and packaging in terms of scope of services.

19. **Use of Systematic Tracking of Exchanges in Procurement (STEP).** Project procurement communication (such as bidding documents, bid evaluation reports, no-objections, and so on) between the implementing agency and the Bank, as well as Procurement Plan implementation will be performed through the Systematic Tracking of Exchanges in Procurement (STEP) system. All procurement transactions for post and prior review contracts under the project must be recorded in and/or processed through STEP. This ensures that comprehensive information on procurement and implementation of all contracts for goods, works, non-consulting services, and consulting services awarded under the whole project are automatically available. The Bank team has established user accounts for Borrower's staff in STEP and provided hands on training on the use of the platform.

20. **General Procurement Notice (GPN).** The GPN was published in United Nations Development Business online and on the World Bank's external website. The GPN contained information concerning the Borrower; amount and purpose of the loan; the scope of procurement reflecting the procurement plan; the name, telephone (or fax) number and address(es) of the Borrower's agencies responsible for procurement; and website where the subsequent Specific Procurement Notices will be posted. It also provided information on the scope of major procurements for the project and soliciting expressions of interest from prospective bidders and/or consultants for this project.

21. **Project procurement will be undertaken in accordance with World Bank Procurement Regulations.** Procurement of Goods, Works, Non-Consulting services and Consultant Services for the proposed project will be carried out in accordance with the World Bank's Procurement Regulations for IPF Borrowers: Procurement in Investment Project Financing Goods, Works, Non-Consulting and Consulting Services", dated July 1, 2016, as revised in November 2017, August 2018, and November 2020 and the provisions stipulated in the Loan Agreement. World Bank's Anti-Corruption Guidelines, dated October 15, 2006 (revised in January 2011 and as of July 1, 2016), will apply to this Project. A General Procurement Notice has been published.



22. **Civil works.** Civil works contracts comprise the main expenditures under the project. One or more contracts, up to about US\$70 million are envisaged for rehabilitation of the important road corridor under Component 1. Prequalification/Initial Selection of contractors will be required for the contract “Rehabilitation of Yenikend – Bilasuvar road section” (Component 1.1). Construction of small-scale road-side logistics and market facilities will be financed under the Component 3.
23. **Procurement of goods and non-consultant services.** No major goods procurement is anticipated under this project.
24. **Selection of consultants:** There are a few standard consultancy packages related to supervision and technical assistance. In addition, there are low-value and simple firm and individual consultancy packages.
25. **Client Capability and PIU Assessment.** All procurement within the project is planned to be conducted by PIU within SAAAR. SAAAR has long experience implementing the World Bank-funded projects with high-value complex works contracts following World Bank Procurement Guidelines. However, SAAAR do not have experience of working with the new World Bank Procurement Regulations. Considering these factors, Procurement Risk Rating is assessed as “Moderate”.
26. **The risks are elevated by the global COVID-19 outbreak,** which has created shortages of supplies and necessary services, which may result in the increased prices and costs. Moreover, the fact that various industries are feeling the impact of COVID-19 also challenges the procurement process and implementation of projects. To deal with potential procurement delays because of the spread of COVID-19, the Bank will support the SAAAR in applying any procedural flexibilities (e.g., extension of bid submission deadlines, advising on the applicability of force majeure, electronic bid submission, etc.). The Bank team will also monitor and support implementation via advising SAAAR on the reasonableness of the procurement approaches and obtained outcomes considering the available market response and needs.
27. **The following risk and proposed mitigation measures** in Table 7, are envisaged to ensure value for money (VFM) and efficiency.

Table 7 - Key Risk and Proposed Mitigation

<i>Risks</i>	<i>Mitigation Measures</i>
SAAAR capacity to handle procurement under this project.	Ensure a full-time dedicated service of an experienced procurement consultant throughout the project life.
SAAAR capacity in procurement of civil works following Procurement Regulations.	Provide customized training on procurement of civil works with specific emphasis on bidding documents, bid evaluation, and contract management.
SAAAR capacity to prepare TORs and technical specifications	(a) Hire technical consultants to supplement. (b) Bank team to apply due diligence for critical packages that are subject to post review.
Potential wrongdoing by the bidder	(a) Conduct customized workshops on prevention of fraud and corruption with the Client. (b) Bidder awareness on fraud and corruption, its remedial measures and obligations under the Banks’ Anticorruption Guidelines as part of pre-bid meeting.



High bid price and lack of competition for high-value procurements.	Conduct bidder's awareness and set qualification requirements based on market analysis to ensure adequate competition and competitive bid price.
(a) High maintenance cost; (b) time overrun to implement the contract; (c) Less lifetime of the product (d) Low quality of the finished product; (e) High cost of ownership over the life of the product; and (f) Negative impact in terms of social and environment aspects	(a) Introduce the Key Performance Indicator (KPIs) in the contracts. (b) Use electronic project management tools to monitor the critical path and critical activities and take proactive measures to mitigate the risk of implementation delay. (c) Introduce remote supervision using electronic tools/devices. (d) Monthly reporting on contract monitoring following the World Bank's sample contract monitoring tool.

28. **Procurement thresholds and prior review thresholds.** The Procurement Plan sets forth those contracts, which shall be subject to the World Bank's prior review. All other contracts shall be subject to post review.

Implementation Support Plan

29. **The strategy for implementation support** has been developed based on the nature of the Project and its risk profile. It aims at making implementation support to the client flexible and efficient and will focus on addressing the identified risks. It also builds on the experience gained during preparation and implementation of other World Bank financed Transport projects in Azerbaijan.

30. **The Implementation Support Plan addresses the design and implementation requirements of the project**, including the implementation of the risk mitigation measures. It builds on the experiences and lessons learned in the implementation and management of other World Bank-financed projects in Azerbaijan and other countries in ECA region.

31. **The Implementation Support Plan will be operationalized through standard semiannual implementation reviews in the form of implementation support missions**, including field visits and in-person meetings with the government officials and project implementation agency. Timing of semiannual reviews will be determined in consultation with the client representatives. Most of the World Bank project team members to undertake implementation reviews are based in the Azerbaijan Country Office. This will facilitate ensuring timely, efficient, and effective implementation support to the client. The World Bank implementation review will cover the following aspects of the support:

- (a) **Financial management.** This will focus on the adequacy of the FM system to ensure that funds are used for the intended purpose, with due regard to economy and efficiency. Based on the level of FM risks at the time of FM supervision, the reviews will include any or all of the following: (i) review and verification of specific transactions, (ii) review of internal controls of FM, and (iii) analysis of the financial statements in relation to the funds disbursed by the World Bank. Desk reviews will also be conducted on a regular basis and upon submission of the annual external audit of the project and the biannual IFRs. Issues arising from these reports will be used to revise and adjust the scope of the planned FM implementation support.
- (b) **Procurement.** This will focus on (i) prior review of procurement documents, (ii) conduct of ex post



reviews at least twice a year, (iii) coaching procurement staff and providing detailed guidance on the World Bank's procurement guidelines, and (iv) monitoring of procurement progress against the detailed Procurement Plan.

(c) **Environmental and social standards.** This will focus on supervision and provision of technical inputs in the implementation of the Social and Environmental Management Plan in accordance with the World Bank ESF. Coaching will also be provided to relevant project staff for the preparation, implementation, and monitoring of environmental and social safeguard instruments.

(d) **Technical implementation advice.** This will focus on the provision of on-demand technical advice on various aspects of the project, including, but not be limited to (i) design and implementation of studies on road user charging models and vehicle overloading controls, (ii) climate resilience measures, (iii) community-based local development concepts, (iv) capacity building for better road investment planning, and (e) gender aspects in the project, etc.

(e) **Project management.** This will focus on the overall management and supervision of the project to ensure technical soundness and consistency, transparency and good governance, inclusiveness, and compliance with relevant guidelines and procedures.

32. **The implementation support missions will result in the production of Aide Memoires.** It is envisaged that the Aide Memoires will provide an overall view of the status of project implementation, including findings and observations from the World Bank. Representatives from the relevant government agencies will be invited to attend the kick-off, wrap-up, and technical meetings. The key issues raised by participants of the meetings with various government and non-government agencies and requiring attention, adjustments, more frequent and in-depth reviews, etc. will be discussed, agreed upon, and recorded in the Aide Memoires.

33. **A midterm review mission will be held within 30 months after the effectiveness date of the project or such other period as may be agreed with the World Bank.** The midterm review is planned to be conducted at either the halfway point of the project period or when the funds are 50 percent disbursed and provides an opportunity to review the project and take stock of implementation progress. Following the midterm review, adjustments to the project may be required, including a project restructuring and/or possible additional financing based on the implementation experience. Any changes to the project that require amendments to the legal documents will require a formal request from the GoA.

34. **Six months before the closing date of the project, the GoA will commence the preparation of the Borrower's ICR.** In parallel, the World Bank ICR team will start undertaking implementation review and gather the necessary information for preparation of the Bank's ICR.

35. **The estimated level of annual support needed to implement the proposed project** is identified below in Table 8.



Table 8 - Implementation Support Plan

Focus of Implementation Support		
Time	Focus	Skills Needed
First 12 months	Project launch and start-up, development of TORs, procurement	Project management, transport infrastructure development, road network management systems, climate resilience, local development and markets accessibility, community relations, road engineering, procurement, FM, environment and social safeguard, gender issues including GBV, administrative support
Annual, from Year 2 to Year 5	Project implementation	
Skills Mix Required		
Skills Needed	Number of Staff Weeks	Number of Trips
Task Team Leader, Project management	10 per year	4 per year, country based
Co Task Team Leader	10 per year	2 per year, HQ based
Road Engineer	4 per year	3 per year
Procurement Specialist	3 per year	2 per year, country based
FM Specialist	3 per year	2 per year, country based
Environment Specialist	3 per year	3 per year, country based
Social Specialist	3 per year	4 per year, country based
Gender Specialist	3 per year	1 per year
Administrative Support	3 per year	0 per year



ANNEX 2: Technical Appraisal Details

COUNTRY: Azerbaijan Regional Connectivity and Development Project

Context

1. **Azerbaijan is bordered by the Caspian Sea in the east, by Iran in the south, by Armenia in the west, and Georgia and Russia in the north, and has an area of 86,600 km².** See also locality maps in Annex 7. According to the State Statistical Committee of the Republic of Azerbaijan, the population of the Republic in 2019 was of 9.981 million people, 53% urban and 47% rural.
2. **The project area is with Aran economic region and extends between Salyan and Bilasuvar.** The size of the villages in the Aran economic region, are generally characterized by a larger population than in the rest of rural area of the country, and this may be explained by more favorable natural, transportation and geographical conditions, which contributes to the economic development of these settlements. The region's proximity to the Baku-Sumgait industrial junction favors the development of labor-intensive cotton production and represents an opportunity to sell agricultural products in Baku's capital region. The Aran economic district, with a large land fund, has mainly developed the production of cotton and of agricultural crops such as grapes, grains, fruits and vegetables, potatoes, and the like. As the Aran economic region is the largest agricultural region of the republic, the share of urban population is small, and rural population is prevailing. Moreover, the rural population of the region has always had a positive dynamic, with a positive impact on the regional demographic trend.
3. **The basis of agriculture in Salyan district is cotton, grain, vegetable, and animal husbandry.** Dry subtropical fruit-growing and gardening are important agricultural areas. In the meantime, there are plastic refineries, cotton processing and brick production factories. Currently, most of the fish sold in the country belongs to Salyan and the black caviar of Salyan is the most expensive caviar all over the world.
4. **Bilasuvar is agricultural plant-growing region with a large cattle-breeding sector.** The reconstructed route within the districts will provide improved access for the agricultural sectors of these economies. Moreover, the route that enables better connections to other local centers of population will increase local economic opportunities.

The Road Network

5. **The Republic of Azerbaijan is situated on the crossroad of major international arteries.** The two main highway routes carrying international traffic are the 503km long East-West Baku – Georgian Border road (the “Silk Road”) and the 521km long North-South section stretching along the coastal areas of the Caspian Sea to the Iranian Border. The Silk Road Azerbaijan is part of the Greater Silk Road, a system of trade routes connecting China to Europe. The main objective of the Silk Road Project Azerbaijan is to provide a continuous, reliable, and direct land transport service between Baku, the capital of Azerbaijan, and the north-west of the country towards the border with Georgia. The Project aims at rehabilitation and reconstruction of the Azeri part of the Silk Road, which features prominently as part of the Transport Corridor Europe-Caucasus-Asia Program (TRACECA) linking it with the Trans-European Networks which, among other benefits, also enhances



international trade. The main national highways (indicated by “M”) connecting Azerbaijan to its neighbors – Russia, Georgia, and Iran, are integral parts of the International East-West (TRACECA) and North-South Transport (NSTC) corridors. Azerbaijan is a major logistics center, through which is passing the shortest way from Europe to Central Asia, the Middle and Far East as well as highway and rail routes connecting the Black Sea and the Caspian Sea.

6. **The main road network in Azerbaijan is structured along one North-South corridor (M1, M3) and 2 East-West corridors (M2, M4).** The M1 links Baku to the Russian border and M3 links Baku to Iran. The M2, part of the Great Silk Road, is the main route between Baku and Tbilisi and the Transport Corridor Europe-Caucasus-Asia (TRACECA) route E-60, a main corridor between Western Europe and China. The M4 runs from Baku to Shamakhi and merges at Yevlakh into the M2. The World Bank, through the Highway and Second Highway Projects, has been supporting Government in upgrading this network. The Third Highway Project (almost completed) is continuing this assistance through upgrading existing road infrastructure into a motorway grid and improving motorway management.

Technical Outline

7. **The project involves upgrading the old M3 corridor.** The new M3 motorway has already been constructed between Alat and the State Border with the Islamic Republic of Iran. The Government now intends to introduce tolling to the new M3 highway and consequently requires a suitable alternative route for non-motorway traffic. The new M3 motorway was opened to traffic in 2018. The motorway was constructed on a new alignment bypassing towns and villages along its route. The original M3 road has been retained to service local and non-motorway traffic.

8. **The section between the village of Yenikend and the city of Bilasuvar is in poor condition and requires rehabilitating to provide a suitable alternative to the motorway.** This road section starts at the junction at km 32+140 of the M3 Motorway and heads southwest before crossing the Kur River on the outskirts of the city of Salyan and ends at km 103+320. From Salyan, the road passes through Sarvan and Shorsulu villages before heading west to the city of Bilasuvar. The total length of this road section is 71.42 km. The existing road largely complies with the dimensional requirements for a Category II road, although not entirely. The pavement is generally in poor condition with multiple defects, and five river/canal bridges along the route are also in need of repair.

9. **The project road is a vital link in the national highway network.** Upgrading this road will strengthen domestic trade in the central and southwest regions of Azerbaijan. It will promote economic activity and employment opportunity for the low-income group people in the central regions. It will also provide safe and efficient transport link between the central and southern agricultural regions with M2. It will contribute to economic integration of the southwest agricultural region into the national economy. There potential benefits are constrained by capacity limitations caused by poor road conditions, congested junctions, substandard horizontal curves and built up areas.

Technical Information

10. **Based on the design standards, resilience priorities, and the connectivity needs of the communities through which it passes, the cross-sectional data and technical parameters for the upgraded road are:**



- Design speed - 90 km/h;
- Number of traffic lanes - 2;
- Lane width - 3.75 m;
- Carriageway width - 7.5 m;
- Shoulder width - 3.75 m;
- Width of paved shoulder - 0.75 m.

11. **In the areas outside of Salyan town the pavement will have the following parameters: -**

- Wearing course Thickness: 50 mm
- Binder Course Thickness: 70 mm
- Bituminous Course Thickness: 150 mm
- Crushed Base Course Thickness: 150 mm
- Granular Sub-base Course Thickness: 250 mm
- Granular Capping Material Course Thickness: 250 mm.

12. **The pavement parameters will be provided for the entire length of the project between Km 32+140 and Km 103+320 excluding through the Salyan Town (between Km 56+300 and Km 58+800).** Since the existing pavement in Salyan town is technically in reasonable shape, considering the difficulty of working in city section and existing condition of the road, the design is modified to mill the existing asphalt surface layers and replace with 70 mm Binder Course and 50 mm wearing course between Km 56+300 and Km 58+800.

13. **The design speed is 90 km/h, except in some sections where it has been reduced to 60 km/h.** The topography of the crossed area is mostly regular and flat or gently rolling, only for the sections approaching the interchanges at the extremities it has been considered a speed limit.

14. **The project road section includes six bridges.** Five of the existing bridges will be completely replaced, and one bridge will be rehabilitated.

Bridge #	Chainage	Length	Crossing Type	Action
1	Km 35+810	43.20 m	Collector	New Construction
2	Km 56+300	43.20 m	Akkusha River	To be replaced
3	Km 70+350	110.00 m	Head Mil-Mugan collector	To be replaced
4	Km 81+265	34.20 m	Akkusha River	To be replaced
5	Km 85+645	43.20 m	Collector	To be replaced
6	Km 90+652	43.20 m	Collector	To be replaced

Seismic Design

15. **The project area is in a seismically active area and this presents a hazard to structures, road embankments and pavement.** The relatively high risk of significant seismic activity occurring in the coming decades is being mitigated by applying current technical design standards. These standards quantify the seismic risk and require elements to be sized and detailed accordingly. Seismically induced landslides are not a hazard for this project as the terrain is predominantly flat.



Road Safety and the Road Safety Screening and Appraisal Tool

16. **Road safety is a primary consideration.** A design stage road safety audit has been conducted, and a further audit will be done just prior to taking-over. In addition, the project was screened using the World Bank's the Road Safety Screening and Appraisal Tool (RSSAT).

17. **The existing road does not have any widening at bus stops and has inadequate sidewalks and road shoulder width.** In addition, there are no guardrails installed on the existing road. This represents a community safety risk and also a safety risk for drivers. To improve the road safety situation, the design for the new road will incorporate widening by, 4 – 4.5 meters to provide sidewalks in bus-stop areas. The dimensions of existing sidewalks will be designed according to the standards. The final design will include shoulder width of 3.75 m according to the second category road standards. Guardrails will be installed in the high embankment sections and where there are super-elevations.

18. **Based on RSSAT, the basic characteristics of the "with" and "without" project scenarios have been used to estimate the change in road fatalities expressed in a Project Safety Impact (PSI).** The tool also estimated the safety benefit/cost of the project with a 20-year timeline into the future. For the case of the M3 "Yenikend-Bilasuvur" (old alignment) rehabilitation project, the results of RSSAT show that the design of the new road is safer, with an anticipated net reduction in fatalities. As per the following tables, the fatality reduction is 13.4% and the value of the Project Safety Impact (PSI) is 0.87.

Table 4 - RSSAT Summary Results

Fatality Percentage Change	-13,4%
Project Safety Impact (PSI)	0,87
Fatalities without project (Selected Year)	4,6
Fatalities with project (Selected Year)	4,0

Table 50 - RSSAT Parameters

	Without Project		With Project	
	Road Casualties			
	Value	Risk Rating	Value	Risk Rating
Annual Fatalities per km	0,0656	Moderate	0,0568	Moderate
Fatalities per billion veh-km	45,72	High	39,6	High
Annual Serious Injuries per km	0,3	--	0,3	--
Serious Injuries per billion veh-km	229	--	198	--

Table 61 - RSSAT Cost Benefit Analysis

Road Safety Cost without project	\$4 193 163
Road Safety Cost with project	\$3 629 689
Benefit (Selected Year)	\$563 475



ANNEX 3: The Local Development and Logistics Component Implementation Details

COUNTRY: Azerbaijan

Regional Connectivity and Development Project

1. **The Local Development and Logistics Component of the Project (Component 3) will include two interrelated sub-components** on (i) development of road-side logistics and market facilities and (ii) implementation of advisory and training initiatives.
2. ***Sub-Component 3.1 – Development of Road-side Logistics and Market Facilities.*** This sub-component will provide financing for (i) TA to guide the planning and development of road-side logistics and market facilities and (ii) implementation of identified small-scale investments. The investments will be identified and designed as a result of participatory planning with local communities and with the strong involvement of the local authorities. An important aspect will be to support development of a suitable model to manage the facilities, one that provides for equitable usage by beneficiary groups and addresses long-term maintenance and operation of the facility. The investments will improve existing roadside logistics and market facilities and/or create new ones along the project road in selected areas. Facilities considered as part of the sub-component interventions will involve, but not be limited to warehouses, cold storages, small markets and selling points, packaging, and distribution facilities.
3. ***Sub-Component 3.2 – Advisory and Training Initiatives.*** Financing for TA to develop a curriculum and then to deliver training and advisory services specific to small-scale agricultural producers and agri-logistics, operating in the project area; for example, businesses supplying organic food products from Salyan to Baku. Activities will include guidance on working safely and strategies to contain the spread of pandemics. There will be a particular focus on the needs of women growers and women entrepreneurs, but the training will be open to all in the project area communities. The sub-component will be tailored to the needs of local beneficiaries, such as farmers, cooperatives, and entrepreneur groups, to be identified through participatory needs assessment and community mobilization work. Advisor and training initiatives will also align with Component 3.1. Advisory services and training will cover such areas as community and cooperative development, business development, branding, digital literacy (e.g. in the use of the e-commerce and e-services platforms and applications), and the like. Some training activities will be tailored to the needs of women entrepreneurs and at least 50 percent of the beneficiaries will be women.
4. **The design of Component 3 draws upon a qualitative socio-economic study conducted in October 2020 to understand the needs of communities in the project corridor.** There are 28 villages located along the old M3 section proposed for rehabilitation. The socio-economic study sampled thirteen villages which are 3 km or less distant from the M3 section. Separate focus groups were held with women and men. One mixed gender youth group and one in-depth interview was also held in each of these villages. In addition, three villages (one with population less than 1,000 and two with population over 1,000) and two rayon centers, were sampled for the additional in-depth interviews.
5. **Respondents in the study shared specific concerns related to transportation and access to markets and services.** Some of the key constraints voiced by local residents in the study included lack of reliable and affordable transportation, lack of access to safe and convenient market spaces to sell produce as well as low demand (fewer traffic and fewer buyers), road condition impeding access to services (specifically, teachers



and students skipping school in fall and winter weather), need for skills and training of small entrepreneurs and female entrepreneurs in running a business, financial literacy, as well as professional/vocational skills that may enable them to start a business. Substantial part of produce is wasted due to the inability to take it to market in timely manner and/or to store and transport it with good quality. Due to lack of local markets accessibility, a number of individual entrepreneurs in each village, predominantly women, practice shuttle trade of eggs, dairy, and seasonal fruits and vegetables, which they purchase door-to-door in their villages and sell in Baku.

6. The component will be implemented by SAAAR with support of local IPE (NGO or consulting team).

The component activities will be based on a participatory process within project communities and involve the five main steps below:

Step 1: Community mobilization

7. The IPE will establish community groups in each village. For selected villages, due to proximity and/or low number of resident groups may be established across several villages. The IPE will liaise closely with local authorities. The IPE will also conduct preliminary mapping of the population and design tailored outreach to potentially disadvantaged or vulnerable groups such as poor, single-parent households, women and women-headed households, elderly, youth, IDPs, among others to ensure that the voice of these groups is adequately represented. Where applicable, separate discussions will be organized with these groups. The IPE will seek to form a local action committee that is gender balanced and representing diverse social groups and work through this committee to ensure efficient disclosure of information and participation of residents. The consultant may use face-to-face or virtual means of discussion to engage with communities taking in to account applicable COVID safety measures.

Step 2: Identification of needs and prioritization exercise

8. Sub-component 3.1: Based on the needs of the community, the IPE will organize an identification and prioritization exercise to short-list the key proposals for possible financial support by the project. In collaboration with PIU the IPE will present to communities a clear set of criteria for feasible investments in road-side logistics and market facilities and discuss details such as the location, use arrangements, among others.

9. Sub-component 3.2: Based on training needs voiced by the communities, the consultant will prepare – in house or outsource – training materials in areas such as IT/computer skills, business start-up skills, writing business proposal, financial literacy skills, etc. to be offered in the communities.

Step 3: Technical and financial assessment of investments chosen by communities

10. The consultant will assess the costs and delivery options for the priorities selected by the communities, present detailed workplan and budget for delivery of these to PIU and agree on specific activities – facilities and training - to be financed under each sub-component.



Step 4: Preparatory works

11. Sub-component 3.1, Technical design of selected facilities: Commission technical design of selected facilities, including ensuring resilience against climate change impacts.
12. Sub-component 3.2, Preparation of logistics for delivery of training: Organize all logistics for training delivery: space, transportation, schedule, making necessary arrangements with local authorities, advertising training, developing plan for competitive selection of participants, recruitment of participants, etc.

Step 5: Implementation

13. The identified and designed activities for development of logistics/market facilities and advisory/training initiatives will be implemented in a community-based participatory manner, under the guidance and supervision of PIU and IPE.



ANNEX 4: Climate Change and Climate Co-Benefits

COUNTRY: Azerbaijan

Regional Connectivity and Development Project

Climate Change Vulnerability

1. **Climate change impacts and natural hazards are expected in the project area.** The project was screened for short and long-term climate change and disaster risks using the World Bank Climate and Disaster Risk Screening Tool. The primary risks for the project road are associated with higher and more extreme temperatures leading to changes in precipitation patterns. The parts of Azerbaijan at greatest risk of floods are in the center and south-east parts of the country, which encompasses the project region. In the project region, the projected increases in precipitation and sudden snowmelt in mountains, is likely to exacerbate flood risk, which is already occurring. One of main areas for potential flooding in the project is alongside the Kur river in Salyan region which is historically prone to flooding during spring and early summer (March – June) due to the melting of snow water from the mountains. There is an estimated 10 percent chance of potentially damaging earthquakes in the project area in the next 50 years. It is estimated that there is 50 percent chance of weather that could support wildfires in the project area, and climate projections indicate a likely increase in the severity of fire, although the consequences of fire on connectivity is likely to be of short duration with low damage impact on the roads. Overall, the impacts on the project's physical infrastructure and assets is rated as moderate, since projections indicate rising temperatures, some probability of increased flooding in the project area, and a moderate risk of geo-hazard.

2. **With respect to climate change impacts, the most salient climate risks along the proposed project corridor are related to increased temperature and more frequent flooding events.** Climactic events can accelerate road deterioration and negatively impact mobility, connectivity, and accessibility. Potential impacts include:

- Changes in temperature—both a gradual increase in temperature and an increase in extreme temperatures—will impact road pavements (such as heat-induced heaving and buckling of joints).
- Changes in precipitation and water levels will impact road foundations.
- Extreme weather events such as stronger and/or more frequent storms will affect the capacity of drainage and overflow systems to deal with stronger or faster velocity of water flows.
- Stronger or faster velocity of water flows will also impact bridge foundations.
- High levels of precipitation may threaten embankment stability.
- Increase in scouring of roads, bridges, and support structures.

3. **The greatest climate change concerns for the Regional Connectivity and Development Project (RCDP)** center around a cluster of extremes, such as heavy rainfall and flooding; heatwaves and drought, all of which has implications for planning, design, construction, and maintenance of road infrastructure. Poor maintenance may further aggravate the problem. More intense rains can stress roads, with sub-grades becoming saturated and losing strength, and retaining walls and abutments becoming weaker. Flooding can trigger landslides and slope failures, de-stabilize culverts, and wash-out roads. Intense heat or drought can lead to soil settling beneath key structures and roads, fire and dust hazards, and high ultra-violet solar intensity can accelerate deterioration of bituminous road surfacing.



Specific Project Activities to Address the Impacts of Climate Change

4. A number of measures have been taken in the design of RCDP to address the project's vulnerability to climate change, including the following.

Resilience to Flooding Through Culverts and Bridges

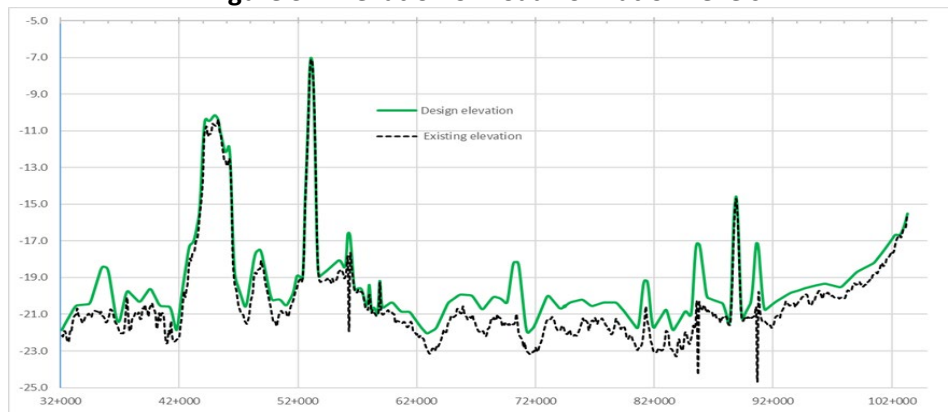
5. The design provides for better drainage along the alignment to ensure that the road does not create a barrier to the movement of water thereby preventing climate change induced flooding of adjacent lands, and wash-out of the road itself. This is done through the following measures:

- Existing pipe culvert located at km 35+810 will be replaced with one-span bridge due to seasonal increase of water level and avoiding any possible flooding risk.
- Existing pipe culverts located at km 41+955, km 63+587, km 66+605, km 71+418, km 78+224, km 80+709 and km 86+110 will be replaced with box culverts due to the volume of the water since the diameter of existing culverts were not enough for water flow.
- Diameter of all the existing steel pipe culverts will be increased according to the second category roads Standard.
- Water balancing culverts will be constructed between km 62+000 – km 81+000 and km 91+000 – km 101+000 with one kilometer intervals in order to balance water level in the wetland area.
- To ensure safe and functional works; a) All new bridges are designed for the life expectancy of 75 years. The bridge rehabilitation and strengthening works will be designed for the life expectancy of 50 years.

Resilience to Flooding through Elevated Formation Levels

6. An elevated road formation is being used to ensure the road performs better during floods. Along with flood relief culverts, some parts of the road embankment will be raised above the flood-plains by up to 2.5 meters (see Figure 6 below). In the road sections passing through wetland areas, rockfill layers will be provided to facilitate cross drainage of flooded water.

Figure 3 – Elevation of Road Formation Levels





Resilience to Temperature Differentials

7. Polymer modified bitumen will be considered within the asphalt layers to provide thermal resistance to the high summer temperatures, which are expected to increase with climate change.

Resilience Through Warning Systems

8. Technical Assistance (TA) under Component 2 will provide guidance on traffic management and intelligent transport systems that will help warn and guide road-users about inclement weather and/or damaged road sections.

Resilience Through Mitigation

9. RCDP will finance TA to plan for Road User Charges (RUC), that can lead to green and sustainable growth for road transport. RUC can be designed so that heavy vehicles, and those with high green-house gas (GHG) emissions pay more, a policy approach aimed at promoting a switch to cleaner vehicles. This particular subcomponent is therefore assessable as a Mitigation Co-benefit and included in the Climate Co-Benefit (CCB) assessment.

Resilience Through Redundancy

10. Further, rehabilitation of the project road will provide additional redundancy to the road network in this area, by providing an alternative road. The main route for north-south traffic is the new M3, whereas the project road is the old M3, which is being rehabilitated to provide better connectivity and access for local area traffic. In an emergency situation, either route may be used for diverted through traffic.

Other Simple Measures for Resilience

11. Notwithstanding the above, a number of other simple measures are being considered to ensure that in the short-term extreme precipitation events do not result in significant impacts to the project. They include:

- Increasing ditch and culvert capacity.
- Maintaining positive cross slope to facilitate flow of water from surface;
- Increasing resistance to rutting;
- Reducing splashing/spray through porous surface mixtures;
- More frequent use of elevated pavement section;
- Improving visibility and pavement marking demarcation;
- Ensuring that embankments are seeded to help increase stability.

Climate Co-Benefits

12. The project has been independently assessed by the World Bank's Climate Change Group, and co-benefits of 44.1% have been assigned to the project.



ANNEX 5: Economic Analysis and GHG Accounting

COUNTRY: Azerbaijan Regional Connectivity and Development Project

A. Economic Evaluation Assumptions

1. To ensure that the Project generates sufficient economic benefits that warrant the investments, a **Cost Benefit Analysis was conducted for the project road using the Highway Development and Management Model (HDM-4)** that computes annual road agency and users' costs for each project alternative over the evaluation period, comparing the proposed project investments with the conditions without such investments. The quantities of resources consumed, and vehicle speeds are calculated first and then multiplied by unit costs to obtain total vehicle operating costs, travel time costs and CO₂ emissions. The resources consumed, and vehicle speeds are related to traffic volume and composition, road surface type, geometric characteristics, and roughness.

2. The quantified net benefits computed by HDM-4 for the project road comprise vehicle operating costs, travel time costs, road maintenance costs due to the road improvements, road safety benefits, and CO₂ emissions costs. For the HDM-4 calculations, the following assumptions were applied:

- A discount rate of 6 percent and an evaluation period of 22 years, comprising two years construction period and twenty years of project benefits. All costs are stated in constant 2020 US Dollars. Economic costs are 78 percent of financial costs.
- The adopted average daily traffic annual increase rate for passenger vehicles is 1.06 percent per year from 2020 to 2023, 2.66 percent from 2024 to 2032 and 2.21 percent from 2032 to 2042. For freight vehicles, the annual traffic increase is 1.07, 2.69 and 2.24 percent respectively³³. No generated traffic benefits were considered because they were considered minimal.
- The average density of fatalities will decrease with the project from 4.6 fatality per year to 4.0 fatality per year³⁴. The social cost of a fatality is US\$ 288,000 per fatality³⁵.
- The social cost of carbon is US\$82 per ton equivalent in 2021 increasing to US\$125 per ton equivalent in 2040, based on the high scenario for the social cost of carbon derived from the 2017 World Bank guidance note on shadow price of carbon in economic analysis.³⁶

3. The table below presents the vehicle fleet economic unit, basic characteristics, and the average traffic composition on the project road. The economic costs reflect the costs net of duties and tax.

³³ The IMF predicts a GDP increase from 2021 to 2025 of 1.73 percent per year in average.

³⁴ Estimated using the Road Safety Screening and Appraisal Tool (RSSAT).

³⁵ Fatality cost = 70 X GDP per capita

³⁶ The guidance note presents low and high scenarios of the social cost of carbon over time, from which the high scenario was used due to positive net CO₂ emission of the project.



Table 12 - Vehicle Fleet Economic Unit Costs, and Characteristics

	Passenger car	Small truck	Medium truck	Articulated truck	Small bus	Large bus
New Vehicle Cost (US\$)	17,647	47,059	64,706	97,059	31,000	117,647
New Tire Cost (US\$)	171	106	265	324	147	324
Fuel Cost (US\$/liter)	0.40	0.30	0.30	0.30	0.30	0.30
Lubricant Cost (US\$/liter)	11.76	11.76	11.76	5.88	11.76	11.76
Maintenance Cost (US\$/hour)	1.67	1.84	2.17	2.17	2.01	2.01
Crew Cost (US\$/hour)	1.35	1.47	1.76	2.17	1.59	1.59
Overhead Cost (US\$/year)	882	1,176	3,235	3,235	735	5,882
Interest Rate (%)	6	6	6	6	6	6
Passenger Work Time (US\$/hour)	7.24	7.24	7.24	0.00	7.24	7.24
Passenger Non-Work Time (US\$/hour)	3.59	3.59	3.59	0.00	3.59	3.59
Cargo Time (US\$/hour)	0.00	0.00	0.00	0.00	0.00	0.00
Annual Utilization (km)	23,000	30,000	86,000	86,000	34,000	70,000
Annual Utilization (hours)	550	1,300	2,050	2,050	850	1,750
Service Life (years)	10	8	14	14	8	12
Number Passengers (#)	3	2	1	0	10	25
Work Related Passenger Trips (%)	75	0	0	0	75	75
Operating Weight (tons)	1.20	2.00	13.00	28.00	2.50	10.00
ESA Loading Factor	0.00	4.50	9.00	9.00	0.04	3.00

4. **The project will finance the upgrading of the road between Yenikend and Bilasuvar (M3).** The project road is a vital link in the national highway network. Upgrading this road will strengthen domestic trade in the central and southwest regions of Azerbaijan. It will promote economic activity and employment opportunity for the low-income group people in the central regions. It will also provide safe and efficient transport link between the central and southern agricultural regions with M2. The project road will be upgraded within the existing road alignment.

5. **The table below presents the basic current roads characteristics.** The total length is 70.49 km and the road is in poor condition, carrying on average 2,497 vehicles per day of which 13 percent are heavy goods vehicles. The road section in Salyan due to its urban condition has higher traffic and lower travel speeds.

Table 13 - Road Sections Characteristics

No	Road Section	Length (km)	Width (m)	Speed Limit (km/hr)	2020 Roughness (IRI)	2020 Traffic (AADT)	2020 HGV (%)
1	M3 before Salyan	22.36	7.50	80	6.0	2,865	16%
2	Salyan	1.94	7.50	50	6.0	4,457	15%
3	M3 after Salyan	46.19	7.50	80	6.0	2,237	12%
Total		70.49	7.50	79	6.0	2,497	13%



6. **The total financial capital cost for the road works were estimated for each project road section.** The table below present the road works evaluated per project road section and the corresponding estimated financial costs and economic costs. The total financial cost for the road works is US\$ 73.16 million that corresponds to US\$ 1.04 million per km.

Table 14 - Road Works Costs

No	Road Work	Unit Cost per km (AZN/km)		Total Cost (Million AZN)		Total Cost (Million US\$)	
		Financial	Economic	Financial	Economic	Financial	Economic
1	Upgrading	1,764,380	1,376,560	39.45	30.8	23.2	18.1
2	Upgrading	1,764,380	1,376,560	3.42	2.7	2.0	1.6
3	Upgrading	1,764,380	1,376,560	81.50	63.6	47.9	37.4
Total				124.37	97.0	73.16	57.08

7. **The table below presents the resulting economic indicators.**

Table 15 - Economic Analysis Results

No	NPV at 6% (Million US\$)	EIRR (%)
1	40.7	18.0%
2	3.1	19.0%
3	47.9	13.5%
Total	91.7	15.1%

B. Economic Analysis Results

8. **The overall EIRR of the project is 15.1 percent and the NPV is US\$ 91.7 million, at 6 percent discount rate, corresponding to an NPV/Investment Cost ratio of 1.25.**

9. **Vehicle operating costs benefits account for around 33 percent of the project benefits, travel time benefits for 65 percent, road safety benefits for 1 percent and reduction in maintenance costs for 1 percent.** The table below presents the distribution of the project net benefits.

Table 16 - Distribution of Net Benefits (Million US\$)

Capital Costs	Maintenance Costs	Normal VOC	Normal Time	Road Fatalities	CO2 Emissions	Total
-40.7	2.0	43.6	86.1	1.3	-0.7	91.7

10. **Sensitivity analysis shows that the project is economically justified even if construction cost is 20 percent higher or if the project benefits are 20 percent lower or both.** If construction costs were 20 percent higher and the project benefits were 20 percent lower, the overall EIRR would drop to 11.5 percent. Switching values analysis shows that construction costs would have to increase by 169 percent for the EIRR to reach 6 percent.

11. **The table below presents the sensitivity analysis results**



Table 17 - EIRR Sensitivity Analysis

No	Base (%)	Costs +20%	Benefits -20%	Cost +20% Benefits -20%
1	18.0%	15.9%	15.7%	14.0%
2	19.0%	16.6%	16.4%	14.4%
3	13.5%	11.8%	11.6%	10.1%
Total	15.1%	13.3%	13.1%	11.5%

C. GHG Accounting

12. **Total gross Carbon Dioxide (CO₂) emissions over the 22-year evaluation period under the without-project scenario are estimated at 428,931 tons and under the with-project scenario at 461,992 tons resulting in a net increase of CO₂ emissions of 33,061 tons, or 1,503 tons per year.** The increase in CO₂ emissions is attributed to the increase in travel speeds with the project.

Table 18 - CO₂ Emissions (tons)

No	Without Project	With Project	Net
1	155,045	167,762	12,716
2	20,424	19,413	-1,010
3	253,462	274,817	21,355
Total	428,931	461,992	33,061

D. Public Sector Financing and World Bank Value Added

13. **Private sector financing is not available to undertake roads project of this nature in Azerbaijan.** Public sector financing is the appropriate vehicle for financing the proposed road works because the civil works costs cannot be recovered through tariffs due the low traffic of the project road.

14. **The World Bank's role is justified because of the project's economic and social benefits.** The World Bank's engagement in Azerbaijan's road sector adds value in several manners, including: (i) bringing global experience on road asset management; (ii) providing best practices in climate resilient transport and sustainable maintenance solutions; and (iii) helping address environmental and social safeguards.



ANNEX 6: COVID 19: Azerbaijan CPF Adjustment Note

COUNTRY: Azerbaijan Regional Connectivity and Development Project

- The World Bank Group's (WBG) engagement in Azerbaijan is guided by the Country Partnership Framework FY16-20 (CPF).** The Performance and Learning Review (PLR, February 2020, Report No. 135627-AZ) re-affirmed the priority areas of the CPF and extended it to FY21. The two priority areas of: (i) Public Sector Management and Service Delivery and; (ii) Economic Competitiveness, are aligned with the country's strategic goals of reducing Azerbaijan's dependence on oil and gas and strengthening its resilience to external shocks through investments into human capital, physical infrastructure, and stronger institutions. The CPF envisages IBRD lending of US \$300-500 mln annually. Since 2015, five new investment projects totaling US\$ 1.2 bn, including TANAP, have been delivered. The CPF allows for adequate flexibility to respond to emerging needs and priorities.
- The economic impact of the pandemic and containment measures have been severe, and together with a fall in oil production and a drought in 2020, induced a 4.3 percent contraction in GDP in 2020.** Services, particularly retail, hospitality, and construction, were impacted the most. Hydrocarbon exports plunged by 30 percent in eleven months of 2020, reducing the trade surplus by 43 percent year-on-year. Similarly, the fiscal balance swung to 6.5 percent of GDP deficit in 2020, from a surplus of nine percent in 2019, reflecting a steep contraction of oil revenues, higher healthcare and social protection spending and an anti-crisis fiscal stimulus estimated at over 3 percent of GDP. Unemployment and income loss in affected sectors are likely to have increased poverty. The 44 -day military conflict with Armenia in late-2020 further exacerbated economic and social challenges. However, the health situation is expected to improve with vaccine roll-out and contribute to gradual economic recovery in 2021. Moreover, recovery in global oil prices and increased public expenditures, particularly on reconstruction of the conflict-affected regions, will further support growth.
- Government's response.** The Government of the Republic of Azerbaijan acted swiftly to support public health needs and curtail transmission, including international border closures and movement restrictions. Between March 2020 and January 2021, three lockdowns were initiated, with restrictions on the opening of schools, public transportation, shopping malls, and other public services. The spread of COVID-19 significantly slowed, but many people's livelihoods, economic activity, and social inclusion were negatively affected. The escalation of the military conflict with Armenia also contributed to increased COVID-19 infections. With some economic and movement restrictions still in place, including international border controls, transmission and fatality rates are currently on a declining trend as are test positivity rates (currently below 5 percent).
- Government has enacted measures to reduce the severity of the impact of COVID-19 on businesses and the most vulnerable population.** To date, the Government has spent \$1.16bn (AZN 1.98bn) from the state budget for the COVID-19 response, including support for public health needs and front-line worker salaries. Other actions increased social benefits and concessions for businesses including: support to micro-entrepreneurs through partial employee salary coverage, temporary public jobs, subsistence and unemployment payments, targeted social assistance, education subsidies, interest payment subsidies, and tax benefits including various tax deferral measures and tax exemptions.



World Bank Group support for responding to the crisis

5. **The WBG program in Azerbaijan for FY20 and FY21 has not required an adjustment; the original lending envelope remains unchanged.** Two IPFs - *Additional Financing for the Judicial Services and Smart Infrastructure Project* and *Employment Support Project* - approved in March 2020, cover areas that are critical during and post-pandemic and have a focus on job creation and digitalization. All four operations in the portfolio have adapted their implementation modalities to enable safe and efficient implementation during COVID-19. All new ASA are fully aligned with the framework of the “Saving Lives, Scaling-up Impact and Getting Back on Track” Approach Paper. Efforts are made to continuously share WBG-produced global research and knowledge, as well as best practice and guidance notes on COVID-19 impact and responses.

6. **Pillar 1: Saving Lives:** In February 2021, the Government indicated its potential interest in accessing financing under the WBG MPA for COVID-19 response and a new rapid response operation is being discussed. In September 2020, via Global Alliance for Vaccines, Azerbaijan joined Vaccines Global Access Facility (COVAX) with a committed amount of US \$21 mln for a vaccine for nearly 10 percent of population.

7. **Pillar 2: Protecting Poor and Vulnerable People:** The ongoing technical assistance (TA) on *E-Health Strategy and Claims Management System Development* (US\$738,000), financed through the Japan Policy and Human Resources Development Fund, aims to strengthen healthcare data management and will help authorities adapt new health service delivery platforms for home-based treatment protocols introduced as part of the COVID-19 response, as well as to restore the primary healthcare screening programs suspended due to the pandemic. The South Caucasus TA on *Social Protection and Economic Opportunities* focuses on helping people with disabilities affected by COVID-19, including through policy formulation as well as targeted capacity building for the staff of the Ministry of Labor and Social Protection of Population.

8. **Pillar 3: Ensuring Sustainable Business Growth and Job Creation:** The ongoing *Azerbaijan Employment Support Project* (US\$100 mln IBRD) contributes to improving access to employment and expands income generation opportunities for IDPs, refugees, women, youth, persons with disabilities, and those in need of social support. Project activities such as skills training, asset transfers, and matching grants support livelihoods and promote micro-enterprises in the post-COVID-19 recovery context.

9. The proposed *Regional Connectivity and Development Project* (US\$65 mln IBRD) will provide safe, efficient and climate resilient transport connectivity and improve market accessibility to boost economic activities in Salyan and Bilasuvar, two economically lagging areas. Road construction works will create short-term employment and contribute to wider post-COVID economic recovery in the region in the medium-term. It will also facilitate longer-term sustainable job creation, business growth, and livelihood improvements through enhanced local and regional supply chains, agri-logistics and market facilities.

10. With its focus on ICT infrastructure, FinTech and Soft Logistics, the forthcoming *Country Private Sector Diagnostic (CPSD)* for Azerbaijan will support effective design of COVID-19 recovery initiatives, investments in sectors that have risen in prominence during the global pandemic and offer new opportunities for economic development in the country.

11. **Pillar 4: Strengthening Policies, Institutions and Investments for Rebuilding Better:** The *Additional Financing for the Judicial Services and Smart Infrastructure Project* (US\$50 mln. IBRD) supports digitalization



and remote access, enhancing the citizens' capacity to receive online services in the situation of restricted mobility, which is particularly relevant in the context of COVID-19. The *South Caucasus Smart Villages Program* has developed a framework for Government to support inclusive COVID-19 recovery, notably related to the use of digital technology for rural development and connectivity, and for more efficient, greener and less infrastructure-heavy approaches to building back better. Under the new phase of the SECO-funded *Tax Reform TA*, the Bank will assist the State Tax Service with developing and implementing emergency and business contingency plans to respond to the COVID-19 crisis.

Complementarity and Partnerships

12. **The World Bank cooperates with development partners on pandemic response as well as in a wide range of knowledge sharing initiatives.** In April 2020, the World Bank and IMF organized a workshop with the Ministry of Economy to discuss potential policy responses to address the needs of various sectors of the economy, and to share global knowledge and experience on mitigating the socioeconomic impact of the pandemic. The potential new MPA project currently being discussed with Government would complement the support of other international partners including: (i) the new regional program of European Union (EU) in partnership with World Health Organization (WHO) to ensure local readiness and preparedness for safe and effective vaccination and (ii) the Asian Development Bank's support for essential COVID-19 supplies (including Personal Protective Equipment, respirators, and bio-hazard management materials) and capacity-building of medical staff for infection prevention and control.

13. **The World Bank has leveraged EUR \$9 mln from the European Commission for a *Rapid Technical Assistance Facility*.** This Trust Fund will be launched in 2021 and finance analytical and advisory work in areas crucial for management of, and recovery from the pandemic, including economic management, social inclusion, governance, and connectivity.

ANNEX 7: Maps

COUNTRY: Azerbaijan
Regional Connectivity and Development Project



