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R2019-0274/1

November 27, 2019

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<p><b>Closing Date: Wednesday, December 18, 2019 at 6:00 p.m.</b></p>
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FROM: Acting Vice President and Corporate Secretary

**North Macedonia - Local Roads Connectivity Project**

**Project Appraisal Document**

Attached is the Project Appraisal Document regarding a proposed loan to North Macedonia for a Local Roads Connectivity Project (R2019-0274), which is being processed on an absence-of-objection basis.

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Report No: PAD3506

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT  
ON A  
PROPOSED LOAN

IN THE AMOUNT OF EUR 70 MILLION  
US\$78 MILLION EQUIVALENT

TO THE  
THE REPUBLIC OF NORTH MACEDONIA

FOR A  
NORTH MACEDONIA: LOCAL ROADS CONNECTIVITY PROJECT

November 21, 2019

Transport Global Practice  
Europe and Central Asia Region

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**CURRENCY EQUIVALENTS**  
(Exchange Rate Effective October 31, 2019)

Currency Unit = EUR (€)

EUR 1.0 = US\$1.11

US\$ 1.0 = EUR 0.90

**FISCAL YEAR**  
January 1 – December 31

**ABBREVIATIONS AND ACRONYMS**

APA	Alternative Procurement Arrangements
CERC	Contingent Emergency Response Component
CPF	Country Partnership Framework
DA	Designated Account
EIB	European Investment Bank
EIRR	Economic Internal Rate of Return
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
EU	European Union
FM	Financial Management
GBV	Gender-based Violence
GDP	Gross Domestic Product
GRM	Grievance Redressal Mechanism
IFR	Interim Financial Report
IPF	Investment Project Financing
MoTC	Ministry of Transport and Communication
MoU	Memorandum of Understanding
MSIP	Municipal Services Improvement Project
MSIP2	Second Municipal Services Improvement Project
NCB	National Coordinative Body
NBNM	National Bank of North Macedonia
NPV	Net Present Value
NRRRP	National and Regional Roads Rehabilitation Project
PDO	Project Development Objective
PESR	Public Enterprise for State Roads
PIU	Project Implementation Unit
POM	Project Operations Manual
PPSD	Project Procurement Strategy for Development
PPSD	Procurement Strategy for Development
RAMS	Road Asset Management System
RED	Roads Economic Decision

RPF	Resettlement Policy Framework
RLRSP	Regional and Local Roads Support Project
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SIP	Solutions and Innovations in Procurement
SPD	Standard Procurement Document
STEP	Systematic Tracking of Exchanges in Procurement
ToR	Terms of Reference
TSA	Treasury Single Account
TTFP	Trade and Transport Facilitation Project
UMIC	Upper-middle-income Country
VET	Vocational Education and Training
VPD	Vehicles per Day
ZELS	Association of the Units of Self Government

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## TABLE OF CONTENTS

<b>DATASHEET .....</b>	<b>1</b>
<b>I. STRATEGIC CONTEXT .....</b>	<b>5</b>
A. Country Context.....	5
B. Sectoral and Institutional Context .....	6
C. Relevance to Higher Level Objectives.....	9
<b>II. PROJECT DESCRIPTION.....</b>	<b>10</b>
A. Project Development Objective .....	10
B. Project Components .....	10
C. Project Beneficiaries .....	13
D. Results Chain .....	14
E. Rationale for Bank Involvement and Role of Partners .....	16
F. Lessons Learned and Reflected in the Project Design .....	16
<b>III. IMPLEMENTATION ARRANGEMENTS .....</b>	<b>17</b>
A. Institutional and Implementation Arrangements .....	17
B. Results Monitoring and Evaluation Arrangements.....	18
C. Sustainability.....	19
<b>IV. PROJECT APPRAISAL SUMMARY .....</b>	<b>19</b>
A. Technical, Economic, and Financial Analysis (if applicable) .....	19
B. Fiduciary.....	20
C. Legal Operational Policies.....	22
D. Environmental and Social.....	22
<b>V. GRIEVANCE REDRESS SERVICES .....</b>	<b>25</b>
<b>VI. KEY RISKS .....</b>	<b>25</b>
<b>VII. RESULTS FRAMEWORK AND MONITORING .....</b>	<b>28</b>
<b>ANNEX 1: DETAILED PROJECT DESCRIPTION .....</b>	<b>37</b>
<b>ANNEX 2: ECONOMIC ANALYSIS.....</b>	<b>40</b>
<b>ANNEX 3: IMPLEMENTATION ARRANGEMENTS.....</b>	<b>48</b>
<b>ANNEX 4: IMPLEMENTATION SUPPORT PLAN .....</b>	<b>58</b>
<b>ANNEX 5: GENDER AND ROMA .....</b>	<b>61</b>



## DATASHEET

**BASIC INFORMATION**

Country(ies)	Project Name	
North Macedonia	North Macedonia: Local Roads Connectivity Project	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P170267	Investment Project Financing	Substantial

**Financing & Implementation Modalities**

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input checked="" type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Disbursement-linked Indicators (DLIs)	<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)	

Expected Approval Date	Expected Closing Date
18-Dec-2019	31-Dec-2024

Bank/IFC Collaboration

No

**Proposed Development Objective(s)**

The project development objectives are to improve government capacity to manage local roads and improve access to markets and services.

**Components**

Component Name	Cost (US\$, millions)
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Component 1: Capacity Enhancement	3.00
Component 2: Rehabilitation of Local Roads and Community Facilities	72.80
Component 3: Project Implementation Support	2.20
Component 4: Contingent Emergency Response Component	0.00

**Organizations**

Borrower:	Ministry of Finance
Implementing Agency:	Ministry of Transport and Communications

**PROJECT FINANCING DATA (US\$, Millions)****SUMMARY**

Total Project Cost	78.09
Total Financing	78.09
of which IBRD/IDA	78.09
Financing Gap	0.00

**DETAILS****World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	78.09
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**Expected Disbursements (in US\$, Millions)**

WB Fiscal Year	2020	2021	2022	2023	2024	2025
Annual	0.86	5.72	9.51	17.66	27.47	16.86
Cumulative	0.86	6.58	16.09	33.75	61.22	78.09

**INSTITUTIONAL DATA**

Practice Area (Lead)	Contributing Practice Areas
Transport	Climate Change, Gender



**Climate Change and Disaster Screening**

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

**Gender Tag****Does the project plan to undertake any of the following?**

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF	Yes
b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment	Yes
c. Include Indicators in results framework to monitor outcomes from actions identified in (b)	Yes

**SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)**

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

**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	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

##### Conditions

Type	Description
Effectiveness	Project Operational Manual has been adopted in a manner acceptable to the Bank.



## I. STRATEGIC CONTEXT

### A. Country Context

1. **North Macedonia is a landlocked country at the heart of the Balkans characterized by mountainous terrain intersected by valleys and lowlands.** As a transit region traversed by two of the ten Pan-European transport corridors, Corridor VIII and Corridor X, its proximity to the European Union (EU) potentially provides the country with access to a large export market of 650 million customers. According to the last census of 2002, the population is about two million, of which 25 percent live in the capital Skopje, 40 percent reside in rural areas, and the remaining share live in smaller urban centers.
2. **An aging population and a long tradition of emigration pose challenges to productivity.** The projected population growth is nearly zero, and estimates based on census data from destination countries (mostly Western European countries and North America) suggest that more than 500,000 citizens reside abroad, one of the largest diasporas in the world as a percentage of the total population. Considering the small size of the workforce and low birth rates, the loss of even a small number of workers affects the overall pool of skills in the economy.
3. **The Prespa Agreement, signed on June 12, 2018, marks an important milestone in the country's long-standing dispute with Greece over the country's name and marks a turning point in North Macedonia's history as an independent nation.** The Parliament in Skopje endorsed the necessary constitutional changes introducing the new name 'Republic of North Macedonia' on January 11, 2019. The use of the new name entered into force in February 2019, after ratification of the Prespa Agreement by the Greek Parliament. In parallel, North Macedonia signed the North Atlantic Treaty Organization accession protocol, a process that was stalled for years due to the name dispute. In April 2018, the European Commission recommended opening accession negotiations with North Macedonia, but on October 17, 2019, the Council of the EU failed to reach a consensus to proceed and deferred the issue to the EU-Western Balkans summit in Zagreb in May 2020.<sup>1</sup> Following the European Council's decision, the Prime Minister announced early elections, which all political parties agreed to hold on April 12, 2020.
4. **Growth and fiscal measures have helped increase employment and reduce poverty since 2009.** The employment rate increased by 10 percentage points, to above 45 percent, in 2018. Job creation was supported mainly by public spending for large-scale public projects, new active labor market policies, and Government support for employment in Special Economic Zones. Growth has also been pro-poor. Between 2009 and 2018, poverty fell by about 14 percentage points, from 35 percent to 21 percent.<sup>2</sup> It is estimated that during these nine years, 287,000 people were lifted out of poverty. Nonetheless, unemployment is still high at 17.5 percent as of June 2019<sup>3</sup>, and labor-force participation is low, especially for those younger than 25 years old or older than 55, and for women. In addition, poverty remains high in rural areas, and progress against poverty since 2009 has not been sufficient to close rural-urban gaps

<sup>1</sup> Council of European Union, <https://www.consilium.europa.eu/en/meetings/european-council/2019/10/17-18/>.

<sup>2</sup> Poverty is measured as absolute poverty using the poverty line for upper-middle-income countries (UMICs), estimated at US\$5.5 per day in 2011 purchasing power parity—the cost in UMICs of satisfying a minimum caloric requirement and typical non-food consumption.

<sup>3</sup> State Statistical Office, [http://www.stat.gov.mk/pdf/2019/2.1.19.30\\_mk.pdf](http://www.stat.gov.mk/pdf/2019/2.1.19.30_mk.pdf).



in living conditions. While the urban poverty headcount rate is 17 percent, the rural poverty headcount rate remains far higher at nearly 30 percent.

5. **North Macedonia is highly vulnerable to natural hazards, including floods, droughts, forest fires, landslides, earthquakes, and extreme temperatures, several of which are amplified by climate change.** North Macedonia faces the highest flood risk in the Europe and Central Asia region. A major flood disaster could derail economic growth, damage or destroy critical infrastructure, cause widespread agricultural losses, and severely disrupt rural livelihoods and welfare.<sup>4</sup> Agriculture is the most vulnerable sector to climate change. The annual damage to critical infrastructure from climate-related hazards is expected to increase fivefold by 2080.

## B. Sectoral and Institutional Context

6. **Infrastructure investment levels in North Macedonia have been low over the past 10 years.** The Government's infrastructure plan, the National Program 2017–2020, focuses on providing infrastructure in support of a modern economy. The main goals for the transport sector are to improve connectivity so that travel between economic centers takes less than 90 minutes, tackle accident blackspots, and achieve a local road network that is 'without mud'. The Government's vision also anticipates that large investment projects will be developed transparently and through consultation with citizens.

7. **The road network in North Macedonia comprises about 14,000 km of roads, which includes about 5,000 km of primary roads and 9,000 km of local roads.** The primary network consists of roads of national significance, including expressways and national and regional roads, and is managed by the Public Enterprise for State Roads (PESR). As of October 2019, the PESR reported that 87 percent of the primary network is in good or fair condition. The World Bank supported rehabilitation of national and regional roads and introduction of a Road Asset Management System (RAMS) for primary roads, through the recently closed National and Regional Roads Rehabilitation Project (NRRRP) (P148023). The RAMS enables the Government to develop five-year rolling programs for road preservation works to address sustainability of the project investments. The ongoing Road Upgrading and Development Project (RUDP) (P149955) will reconstruct sections of Corridor VIII between Skopje and Deve Bair and continue to support PESR to enhance its capacity to manage primary roads with a focus on bridge management.

8. **Governance of the 9,000 km local road network is fully decentralized to municipalities, most of which have limited capacity to manage and preserve road assets.** Local roads consist of a mixture of rural roads connecting villages and towns and streets within urban areas and villages. The local road networks suffer from a lack of systematic planning, neglected maintenance, and insufficient funding. The poor quality of municipal infrastructure is considered a major factor preventing people from regularly accessing social and educational services and employment opportunities outside their immediate communities. Minimal central government support for the strategic development of local roads and local government hesitance to pursue to inter-municipal cooperation also limits the potential to develop synergies that could be achieved through a more coordinated approach. The main body lobbying on behalf of the municipalities is the Association of the Units of Self Government (ZELS), which represents their interests and may provide a convening forum for more integrated planning and policy development.

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<sup>4</sup> World Bank. 2018. *North Macedonia Systematic Country Diagnostic*, Report No. 121840.



9. **While there is limited data on the condition and extent of the local road networks, it is thought that most of the main links are in place, but the network requires renewal, improvement, and climate proofing.** Local governments have varying capacities to plan maintenance works and generally lack the capacity to collect road condition data and utilize it for systematic maintenance and rehabilitation planning. There is a need to introduce simple asset management tools to keep track of the inventory of roads and facilitate planning and prioritizing of rehabilitation and maintenance activities. Improving the network of unpaved rural roads and urban streets to an 'all-season' condition is a priority and will improve the quality of life for rural and urban dwellers.

10. **Only a few of the 80 municipalities in North Macedonia can sustain a dedicated local roads department, and local roads programs are often criticized for lacking transparency.** Most municipalities do not have formal asset management systems and instead rely on committees to prioritize road rehabilitation and maintenance expenditure and rely on staff trained in other disciplines for roadworks execution. For instance, urban planning staff will generally plan and prioritize the annual maintenance program, public works department staff will assume design and supervision responsibilities, and the municipal financial and/or procurement staff generally lead the implementation of road contracts. While management of small-scale road networks does not require complex asset management methods, the committees are often criticized as lacking transparency. Some municipalities, in recent years, have piloted citizen engagement in the process of prioritizing capital investment. There is a need to roll this out more systematically and think how complementary investments can be used to maximize the social impact on communities. These complementary investments may include investments in public transport, sidewalks and lighting, and other community facilities.

11. **Maintenance is carried out in a variety of ways and most municipalities have a system of execution in place, even though underfunded.** Small rural municipalities use public multisectoral communal enterprises to carry out routine maintenance, while large municipalities, such as Gostivar, Tetovo, and Bitola, outsource routine maintenance to private contractors using call-down contracts. Municipalities such as Negotino, Kavadarci, Skopje, Debar, and Resen adopt a mix of both arrangements. Other methods include 'lengthman' or 'villageman' type contracts where a person is responsible for a specific section of the network. While municipalities currently have limited appetite to enter into intermunicipal cooperation agreements for maintenance contracts, this approach offers considerable benefits and should be further explored.

12. **Insufficient and insecure funding accelerates deterioration of the local road network.** Funding for local roads comes primarily from municipal revenues and a budget transferred to municipalities each year from the central government through the PESR. The annual fund transfer by the PESR amounts to Macedonian denar 300 million from 2012 to 2019 (equivalent to EUR 5 million) and could be used for construction, reconstruction, maintenance, and protection of local roads and streets. In reality, this amount does not even cover the basic maintenance needs of the municipalities. The formula for allocating these funds to each municipality was established in 2008 with the support of the closed Regional and Local Roads Program Support Project (RLRSP) (P107840). The formula, which has been adopted in the law of public roads considers population, geographic area, number of vehicle registrations, and length of local roads. The underlying data for the formula now need to be updated and the allocation criteria reviewed. Furthermore, although the PESR transfers annual funds to each municipality, neither the PESR nor the Ministry of Transport and Communication (MoTC) monitors municipalities' use of those resources or maintains an updated inventory of local roads and their condition, which would be beneficial for adjusting future funding levels.



13. **The Ministry of Agriculture and EU pre-accession assistance provide additional support to local roads.** This includes an annual budget of EUR 500,000 that focuses on support to rural municipalities, specifically unpaved field access roads. The Instrument for Pre-accession Assistance for Rural Development can provide up to EUR 10 million per year for asphalt roads that connect two villages (up to 1 km), asphalt roads that connect two towns (up to 5 kms), and water supply schemes. There is a major problem of absorption of pre-accession resources, however, not only because there is a lack of ready and eligible projects but also because the municipalities cannot afford their counterpart contributions in the form of value added tax payments.
14. **There is also project-specific financing for local roads from development partners, including World Bank projects.** The World Bank has financed several programs for municipal roads including the RLRSP and the ongoing Municipal Services Improvement Project (MSIP) (P096481) and Second Municipal Services Improvement Project (MSIP2) (P154464). The European Bank for Reconstruction and Development provided parallel financing to the RLRSP. The MSIP is aiming to improve the transparency, financial sustainability, and delivery of targeted services under the responsibility of competitively selected municipalities and their communal service enterprises. Though rehabilitation of local roads was just one of numerous types of possible municipal infrastructure and service improvements, the MSIP has rehabilitated 146 km of local roads with 415,000 direct beneficiaries. MSIP2 is now mid-way through implementation, but it is expected to have similar impacts.
15. **The overall governance for delivery of municipal services, including transport services, needs to be improved.** A recent World Bank interim white paper on the financial sustainability of municipalities in North Macedonia highlighted debt sustainability, revenue raising capabilities, and consistency of funding as important issues affecting sustainable service delivery. The report indicated that the quality and transparency of public expenditures on transport could be improved. The system of oversight is not as developed for small municipal projects as it is for large-scale infrastructure. More emphasis should be given to improving the quality of design and supervision of roadworks, ensuring effective competition in the procurement process, disclosing maintenance plans, and ensuring consistency in the reporting of expenditures and outcomes. This project will seek to enhance the national framework for governance of the sector and help build the systems and capacity to implement it, leading to more effective use of not only project investments but also domestic funds and support from other development partners.
16. **There is also a need for a more effective and transparent mechanism for the prioritization of domestic and development partner funds to subproject selection.** Priorities, in part, should be determined based on road characteristics such as traffic and road conditions. It is also important that support to local roads address other priorities, including providing access to other investment projects such as those in agriculture, energy, or education; enhancing connectivity between municipalities; community needs as identified through community consultation; and finding the right balance between prioritizing lagging regions while not overinvesting in areas that are depopulating.
17. **The transport sector faces ongoing stresses related to climate change. Major flooding in 2015 drew attention to the risks to the primary road network in North Macedonia.** Through support of the NRRRP, the PESR developed a Climate Resilient Design Guidelines in 2019, which recommended engineering and non-engineering measures focusing on institutional and legal arrangements, to enhance consideration of climate resilience in the planning, operation, and management of the primary road network. However, little effort was paid to development of measures to enhance resilience of local roads. The existing maintenance contracts pay insufficient attention to off-road measures such as slope stability



and drainage. Similarly, the design of improvement works needs to take more account of the topography of the area surrounding the road, local knowledge from past flood events, and the need to design for sufficient side and cross drainage.

18. **While there is limited research into gender and ethnicity in the transport sector in North Macedonia, significant gaps exist along gender and ethnicity lines.** For instance, research in the Western Balkans region and stakeholder discussions in North Macedonia indicate that the transport needs and preferences of Roma often differ from those of non-Roma and likewise differ among women and men. Roma and women (regardless of ethnicity) are less likely to rely on private automobiles and more likely to walk or use public transportation, and Roma as a group are less likely to use the transport system than the population overall. The preliminary findings of focus groups undertaken with Roma women, Roma men and non-Roma women in Sveti Nikole and Kumanovo municipalities confirmed that road users with diverse socioeconomic backgrounds face common mobility challenges due to inadequate road and public transport infrastructure and services. However, as women have greater reliance on public transport and bear disproportionately more childcare responsibilities than men, they are more affected by inadequate transport systems. Labor statistics also reveal large gender and ethnic gaps in access to employment across the economy, and particularly large gender gaps exist in participation in employment in the transport and construction sectors: only 12.8 percent of women are employed in transport and storage and only 6.6 percent of women are engaged in construction.<sup>5</sup> Annex 5 provides further details.

### C. Relevance to Higher Level Objectives

19. **The World Bank's Country Partnership Framework (CPF) (FY19–23) (Report No: 135030-MK)** for North Macedonia calls for a three-pronged approach to address economic development challenges through interventions focused on (I) fostering a more dynamic and competitive private sector, (II) developing a more competitive and adaptive human capital and closing opportunity gaps, and (III) achieving sustainability. Investments in local roads and in local government capacity to manage local road networks will improve economic competitiveness of the private sector in support of Focus Area I. Building local government capacity to manage local road networks and promoting citizen engagement in management of local road networks support Focus Area II of the CPF by enhancing the quality and responsiveness of public services and skills development. The project pilot municipal programs to support gender- and Roma-differentiated transport needs and project interventions supporting Roma men's and women's employment opportunities in the transport sector will further support CPF Focus Area II by facilitating development of human capital and skills to boost labor productivity and more inclusive labor market participation and align with the World Bank's corporate priorities on gender and citizen engagement. Finally, ensuring more sustainable use of public budgets for the transport sector and improving the climate resilience of the resulting infrastructure and services directly support the sustainability objectives of Focus Area III.

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<sup>5</sup> Republic of North Macedonia State Statistical Office. 2019. *Women and Men in North Macedonia*. 2017 figures, ages 15 and above.





## II. PROJECT DESCRIPTION

### A. Project Development Objective

#### PDO Statement

20. The Project Development Objectives (PDOs) are to improve government capacity to manage local roads and improve access to markets and services.

#### PDO Level Indicators

21. The PDOs will be measured by the following indicators:

- (a) Number of markets and services connected by improved, safe and resilient local roads
- (b) Beneficiary satisfaction (gender disaggregated) with project roads (percentage)
- (c) Municipalities utilizing simple asset management methods developed under the project
- (d) National policy adopted for local roads

### B. Project Components

22. **The project will be supported by a EUR 70 million (US\$78 million equivalent) IBRD loan.** The project will include the following four components: (a) Capacity Enhancement, (b) Rehabilitation of Local Roads and Community Facilities, (c) Project Implementation Support, and (d) Contingent Emergency Response Component (CERC).

#### Component 1: Capacity Enhancement (EUR 2.7 million)

23. **This component will finance technical assistance and capacity-building activities that will build local and central government capacity to manage local roads by introducing a sound planning and governance framework and improved contracting approaches.** This component will include the following two subcomponents.

*Subcomponent 1.1: Strengthening municipalities' planning and implementation capacity (EUR 2.0 million)*

24. **This subcomponent will finance a municipal capacity assessment to assess the strengths and weaknesses of the current system for the management of local roads and propose a program for enhancing capacity.** It will also finance development of a range of simple road maintenance contracts that could be adapted to municipalities' diverse needs and encourage adoption of these contracts to improve utilization of their maintenance expenditures; assess how smaller municipalities can benefit from the economies of scale afforded by larger contracts, such as area-based maintenance contracts; and develop a simple Excel-based RAMS for maintenance and rehabilitation planning and support some of its data collection needs. Capacity building will be geared toward the existing capacity and human resources in municipalities and will focus on (a) collecting road inventory data, (b) using the simple RAMS to monitor road conditions and program road maintenance and rehabilitation, (c) redressing citizen grievances, (d)





promoting transparency in decision making, and (e) executing road maintenance activities more efficiently through improved contracting methods and inter-municipal cooperation where appropriate. The support will be streamlined by establishing working groups based on each municipality's willingness to implement the institutional reforms suggested in this project. Specific activities financed under this subcomponent include trainings, technical assistance consultancies, and establishment and financing routine outreach to municipalities.

*Subcomponent 1.2: Capacity support to MoTC (EUR 0.7 million)*

25. **This subcomponent will finance technical assistance and capacity building to help the MoTC assume a stronger role in overseeing the development and quality of local roads.** This subcomponent will provide technical assistance support for (a) developing a central government policy for municipal roads; (b) defining a sustainable source of financing for both capital investment and maintenance; (c) reviewing and or updating the allocation formula used to transfer funding to municipalities through PESR; (d) developing a central government mechanism for monitoring municipal road conditions; (e) conducting road safety capacity review and providing recommendations for institutional change; (f) developing climate-resilient design guidelines for local and low-volume roads; and (g) coordinating with other stakeholders, including ZELS and regional development agencies.

**Component 2: Rehabilitation of Local Roads and Community Facilities (EUR 65.3 million)**

26. **This component will finance infrastructure investments in municipal roads and streets and related consultative and preparatory processes.** It will be implemented through two subcomponents.

*Subcomponent 2.1: Road rehabilitation and improvement (EUR 62.8 million)*

27. **This subcomponent will finance rehabilitation of municipal roads and streets to improve their quality, safety, and resilience.** No greenfield construction will be financed. No greenfield construction will be financed. Loan proceeds will be allocated among 80 municipalities on a grant basis according to a criterion agreed among the MoTC, the municipalities, and the World Bank. The funds allocation criterion has been agreed that provides for a minimum allocation per municipality (EUR 500,000) with the remaining funds allocated based on a modified European Investment Bank (EIB) Project formula previously agreed with municipalities, which considers the size of the population, the number of settlements, the area of the municipality, and the number of registered vehicles. All municipalities were consulted during the development of this formula. The formula provides transparency, technical soundness, and good geographic coverage through the country. The cost of subprojects in each municipality should be equal to or below its allocated loan proceeds.

28. **The project will finance about 450 km of roads, or 5 percent of the local roads in the country.** The loan will also finance supervision consulting services. The technical designs could be prepared by municipalities, through MSIP technical assistance, or by consultants financed through the loan. Project designs will address vulnerability to climate change and other relevant natural hazard risks and undergo road safety audits. Where appropriate empty communication ducts will be installed along project roads to support the country's digitalization agenda as supported through the North Macedonia Digital Economy Project (NODE) (P170993). Annex 1 provides a more detailed description of the allocation formula and selection of project roads.



29. **To accelerate project implementation, the first-year road rehabilitation works were selected from a pool of existing high-priority road rehabilitation designs prepared by municipalities.** The MoTC gave municipalities clear guidance to prioritize roads that link to services (for example, schools and hospitals) and markets. Municipalities submitted stamped engineering designs and statements describing the social and economic rationale for selection of each road section. The MoTC screened these proposals to verify technical adequacy of the civil works designs and readiness for implementation, eventually narrowing the list of first-year works to 83 km, at an estimate cost of EUR 14 million.

30. **For subsequent phases, municipalities will use a systematic planning process and a participatory needs assessment that engages all groups in the community to identify the remaining local roads to be supported by the project.** As municipalities develop their capacity to use simple asset management methods, they will be expected to use the RAMS to aid in identification of project roads. The municipalities will also use a participatory process to identify the specific challenges to be addressed in civil works designs (for example, a sidewalk is needed). These proposed interventions will be subject to the MoTC's and World Bank's oversight and economic cost-benefit analysis. Municipalities will be encouraged to select roads that connect to other World Bank projects, including buildings benefitting from the Public Sector Energy Efficiency Project (P149990) and agricultural value chain facilities developed under the Agriculture Modernization Project (P168014).

31. **To receive support from Subcomponent 2.1, each participating municipality will be required to sign a Memorandum of Understanding (MoU) with the MoTC before commencement of procurement of its first subprojects, and sign an Implementation Agreement with the MoTC for each sub-project before commencement of civil works.** The MoU and Implementation Agreement will outline the responsibilities of the MoTC and municipalities during and after project implementation and will commit municipalities to undertake certain actions that support the PDOs.

*Subcomponent 2.2: Community-driven infrastructure pilot (EUR 2.5 million)*

32. **This subcomponent will provide financing to selected municipalities to pilot priority investments identified by the communities to enhance their mobility and road safety.** This will help ensure that the road investments (financed under Subcomponent 2.1) optimize local mobility. As the projects will be demand driven, it is not known what the specific supplemental investments will support but mobility plans will be developed in conjunction with the communities to prioritize interventions. The mobility plans will identify solutions for the community's broader mobility needs in relation to public transport services, active mobility, resilience, security, and safety. Plans may include specific measures to improve safety such as sidewalks, bike paths, supplementary street lighting, bus shelters, junction improvement, road calming, and/or pedestrian crossings; to improve climate resilience such as slope stabilization and spot drainage works; and for improved public transportation and school bus services. Some funding will be dedicated to vulnerable groups including Roma. Municipalities selected to participate in the pilot will have a demonstrated need for, and commitment to, community-driven projects that serve the needs of vulnerable groups. The findings of the ongoing Roma and Gender Assessment<sup>6</sup> will inform interventions in this subcomponent to better serve Roma and Woman's mobility needs.

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<sup>6</sup> This technical assistance is funded by a World Bank Europe and Central Asia inclusion grant.



### Component 3: Project Implementation Support (EUR 2.0 million)

33. **This component will support project costs of the Project Implementation Unit (PIU) under the MoTC.** The PIU has already been jointly established for this project and the Western Balkans Trade and Transport Facilitation Project (TTFP) (P162043). Expenses that may be financed by this activity include, but are not limited to, staff positions such as the PIU director, procurement consultant, financial management (FM) consultant, social and environmental consultant, and civil engineers<sup>7</sup>. Although project implementation is centralized at this PIU, close collaboration with 80 municipalities is required. This component will also finance appointment of independent technical auditors who will assess a random sample (5 to 10 percent) of roads to ensure that the quality of the planning, design, and construction process is in accordance with agreed procedures. The independent audits will also provide lessons that will support continuous improvement to the institutional elements of the project.

### Component 4: Contingent Emergency Response Component (CERC) (EUR 0 million)

34. **Following an eligible crisis or emergency, the borrower may request the World Bank to reallocate project funds to support emergency response and reconstruction.** In such an event, this component would finance emergency response and reconstruction by drawing from the uncommitted loan resources of the other project components.

## C. Project Beneficiaries

35. **Rehabilitation and improvement of an estimated 450 km of local roads will provide better and safer transport in the 80 participating municipalities with combined populations of about 2 million.** Beneficiary communities include a mix of rural communities with higher poverty levels and greater reliance on agriculture, urban municipalities, and areas with socioeconomically diverse populations. The project's roads improvements will benefit residents, businesses, and service providers. Improved road conditions will enhance the economic competitiveness of productive areas, supporting economic growth of beneficiary communities. Road rehabilitation and related enhancements such as bus stops, sidewalks, bicycle facilities, improved drainage, and safety features will provide residents a higher quality of life. Enhancing the climate resilience within the local roads networks will benefit residents and businesses by reducing the likelihood and severity of interruptions to road access.

36. **Mainstreaming citizen engagement in the local road management will benefit vulnerable groups, including women, Roma, and the disabled.** Improving public transit services, bus stops, and bicycle and pedestrian facilities will also benefit certain socioeconomic and demographic groups—especially the poor, women, and Roma—who are less likely to rely on private automobiles to meet their mobility needs because of differences in travel patterns. These project interventions will also help improve their income-generating opportunities beyond their villages and towns and contribute to better and more sustainable livelihoods.

37. **The project capacity building, policy development support, and training will directly benefit the MoTC and municipalities and enable them to better fulfill their mandates.** Municipalities will benefit from technical assistance and training in the use of simple asset management techniques and improved procurement/contracting methods and greater availability of road asset condition information—all of

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<sup>7</sup> The EUR 175,000 front end fee will also be financed from this component.



which will enable them to better use the limited budget. The MoTC will benefit directly from policy and institutional development support to enable it to identify a clear central government role supporting local road management. Improving the central government's funding, monitoring, and technical support roles will help municipalities sustain improvements to their local road networks. Society at large will benefit from improved overall management of the local road networks.

#### **D. Results Chain**

38. The project theory of change is that a combination of investment in local roads and transport facilities and stronger government capacity and policy will bring sustained improvement in the condition of local roads, reduce transport costs, and improve connectivity and thereby enhance access to services and local economic competitiveness, leading to gains in productivity, welfare, and quality of life.



**Figure 1. Theory of Change**

Challenges	Interventions	Impact	Objectives
Management of the majority of the country's roads is decentralized to municipalities, who have limited technical capacity to carry out efficient and systematic maintenance. This accelerates pavement deterioration and reduces resilience and safety.	Assess municipal capacity and implement a capacity-building plan collect road condition data, establish simple asset management systems, and mainstream improved maintenance contracts	Improved asset management and more sustainable and resilient local roads	Improve government capacity to manage local road assets
Local road spending is not fully transparent, and the public perceives spending priorities and outcomes as inefficient.	Mainstreaming citizen engagement and transparency in municipal road budget planning	Stronger incentives to use resources efficiently; enhanced public trust	
Limited central government support and oversight of local roads enables a vicious cycle of mismanagement and missed opportunities to sustainably improve road conditions.	Create local road conditions database and local road policy	The MoTC oversight changes institutional incentives	
Funding for local roads is inadequate and allocated inefficiently.	Update road funding formula and identify new sources of road funding	More efficient allocation and narrower funding gap	
Local roads are often in very poor condition and vulnerable to climate impacts, resulting in loss of quality of life and connectivity to services and markets, higher road user costs, and greater likelihood of climate-related disruptions.	Rehabilitation of 450 km of local roads using climate-resilient designs, road safety inspections, and road safety audits	Improved road conditions, safety, and resilience enhance access to markets and services	Improve access to markets and services
Municipal transport systems often do not align to the needs and preferences of diverse communities and often lack facilities valued by vulnerable social groups and individuals.	Community-driven infrastructure pilots focused on needs of vulnerable groups	Transport infrastructure and services that meet needs of vulnerable groups	
Municipal transport projects often employ very few women and representatives of minority groups in their workforce, resulting in limited employment opportunities and earning potential for these groups and reduced talent for contractors.	Include clauses in bidding documents to require contractors to employ women (Roma and non-Roma) as well as Roma men in project works	Improved gender and ethnic diversity in transport workforce	



## **E. Rationale for Bank Involvement and Role of Partners**

39. **The World Bank has been the Government's trusted partner in the road sector and is well positioned to support the Government's effort to address key challenges in prioritization, addressing arrears, and asset management.** In addition to financial support, the World Bank is continuing to assist the Government's efforts to improve primary network planning and prioritization by enhancing the PESR's capacity to use an RAMS. The proposed project complements the ongoing World Bank support to the PESR and the primary network by investing in local road rehabilitation and enhancing the MoTC's and municipalities' capacity to manage local roads in a sustainable manner. Furthermore, as local roads are not suitable candidates for private sector investment, the access and connectivity benefits of the proposed project would not be realized without development partner involvement. The World Bank's engagement adds value in several ways, including (a) bringing global experience on local roads' investment planning and management, (b) providing best practices in climate-resilient transport and sustainable maintenance, (c) helping manage environmental and social impacts, and (d) opening a dialogue with the central government on policy and institutional support to local roads.

40. **The World Bank invests substantially in municipal spaces in North Macedonia.** As noted in the most recent CPF (Report No: 135030-MK), municipal spaces play important roles in quality of life, access to services, resilience, and poverty. Going forward, the World Bank also has several other projects in the municipal space including the Public Sector Energy Efficiency Project (P149990) focusing on energy efficient building renovations (for example, schools and hospitals), the Agriculture Modernization Project (P168014) improving the agricultural value chain facilities, and the North Macedonia Digital Economy (P170993) providing high-speed broadband coverage to rural areas. The proposed project is a centerpiece to connect these investments—synergies have been built in the project designs to prioritize local roads around those buildings and agricultural facilities and ensure empty ducts along roads for future installation of fiber optic cables.

## **F. Lessons Learned and Reflected in the Project Design**

41. **A key lesson from implementation of both the MSIP and the RLRSP is that the municipalities' role in the project must be carefully defined.** While municipal involvement adds considerable value to local roads projects, fully decentralizing implementation of a local roads project of this size introduces additional complexity, risk, and delays. The RLRSP successfully incorporated municipalities into subproject selection and ensured local government buy-in. Decentralization of design and supervision of civil works to municipalities under the RLRSP resulted in implementation delays (because local governments were slow to prepare designs), designs that inadequately addressed road safety and climate risks, and additional costs (due to retrofitting). The project will build on these lessons by involving municipalities in the planning process and using design and supervision consultants, where necessary, to supplement municipal capacity. These measures should ensure timely preparation of quality civil works designs that incorporate safety and natural hazard risks from the outset. The risk of implementation delays will be further mitigated by using MSIP resources to complete the second-year civil works designs.

42. **The project also adopts lessons about challenges in sustaining investment in local roads in North Macedonia.** Project Subcomponents 1.1 and 1.2 respond to the sustainability lessons identified by the



Independent Evaluation Group Project Performance Assessment Report of the RLRSP<sup>8</sup> including the following: (a) greater municipal government capacity is needed to sustain improvements to local road networks, (b) a stronger central government role is required, (c) local roads funding is inadequate, and (d) there is no single entity with accountability for local roads. The project approach is to balance risks and benefits and engage in areas where sustained progress is most achievable.

43. **A recent impact assessment from the MSIP, highlighted that the choice of projects at the program level broadly corresponded to priorities of the National development strategy.** However, while the report confirms that the subprojects were needed, they were not necessarily the highest priority within local communities or those that would have had the most benefit to the citizens within the budget available. The report points to a lack of prioritization of investments at the selection stage, with unclear project selection criteria, including cost-benefit criteria. To address these concerns, the proposed project has developed a multi-criteria selection process for subprojects. This selection process will be complemented by the simple asset management system once it becomes available. The project will also use community participation during the selection stage of subprojects to ensure that citizens' voices are heard and that the investments chosen will have maximum impact.

### III. IMPLEMENTATION ARRANGEMENTS

#### A. Institutional and Implementation Arrangements

44. **Project implementation will be centralized in the MoTC.** This strategy manages risks associated with the complexity of working with 80 municipalities and builds on lessons learned from other projects involving local roads. The MoTC is also the Government's preferred implementing agency given its oversight role of local roads. The MoTC is currently implementing an EIB-financed project on municipal water supply systems, which is also implemented at the municipal level. The proposed project and the Western Balkans TTFP (P162043) will be the first World Bank project implemented by the MoTC and will use a joint PIU. While this arrangement may reduce ownership and capacity building at the municipal level, centralizing these functions is vital to reducing the transaction costs of working with 80 municipalities. It is also expected that the PIU staff will closely work with municipalities to support institutional capacity building at the municipal level.

45. **The MoTC has established a joint PIU that is currently staffed with a director, two procurement specialists, one financial specialist, and four transport infrastructure engineers.** The PIU will report directly to the MoTC and is located on the MoTC's premises. The appointment of social and environmental PIU staff is pending.<sup>9</sup> The PIU will manage day-to-day activities under the proposed project and would be responsible for overall project coordination and supervision, procurement and contract management, FM, monitoring and evaluation, coordination with municipalities and ZELS, and capacity-building activities.

<sup>8</sup> World Bank. 2018. *Project Performance Assessment Report, Regional and local Roads Program Support Project*. Report No. 132581.

<sup>9</sup> Currently, the MoTC and the participating municipalities do not have environmental or social specialists. Given the lack of capacity, an environmental and social consultant has been engaged to help the MoTC prepare the project in accordance with requirements of the World Bank's Environmental and Social Framework. The MoTC will hire environmental and social specialists who will provide full-time project implementation support and support capacity building to municipalities before the start of project implementation.





46. **As the ultimate owners of the roads, all the participating municipalities will also take an active role in the project.** The municipalities will be responsible for subproject selection in accordance with agreed criteria, will provide supervisory staff during the implementation phase, and will commit to maintaining the road following handover of the project. The municipalities will be expected to disclose prioritized annual and multiannual investment and maintenance plans and adopt the various maintenance tools developed under the project. To receive support from the project, municipalities will be required to sign an MoU with the MoTC before the commencement of procurement of subprojects. The MoU will outline the responsibilities of the MoTC and municipalities during and after project implementation and commit municipalities to undertake certain actions that support the PDOs. The MoU will commit the municipalities to undertake various activities including the following: (a) participate in project training opportunities and reform activities, (b) use simple road asset management methods and a transparent budget planning process, (c) maintain a road inventory, (d) adopt use of improved contracts for maintenance, (e) ensure project approval by Municipal Council and by the mayor and availability of necessary construction permits, (f) participate in informal works supervision, (g) issue opinion about completed works before final payment, and (h) maintain project roads after handover.

47. **A Project Operations Manual (POM) will be prepared for the project.** The POM will outline the internal procedures to be followed by the PIU in relation to FM, procurement management, and safeguards policy. The POM will clearly define selection criteria for subprojects for Subcomponent 2.1, community-driven infrastructure pilots for Subcomponent 2.2, and the processes for the MoTC oversight of subproject selection. The POM will also include the MoU template, requirements for road design standards, and the requirement to include interventions to improve climate resilience. In addition, Contingency Emergency Response Manual will be developed and included in the POM annex to prescribe detailed implementation arrangements for the Component 4.

## **B. Results Monitoring and Evaluation Arrangements**

48. **Project results monitoring and evaluation will be carried out by the PIU within the MoTC.** Municipalities will collaborate with the PIU by sharing information, where necessary, to monitor the project outcomes. The POM will elaborate the details and specifics of the institutional and implementation arrangements, including monitoring and evaluation activities.

49. **The PIU is expected to file four quarterly implementation reports each year and one comprehensive annual monitoring and evaluation report.** Quarterly reports will summarize progress and issues related to procurement, FM, implementation of activities, social and environmental risk and impact management, and results monitoring. The focus of the quarterly reports is to enable communication that supports problem identification and resolution. The format of the quarterly reports will be defined by the PIU, and the quarterly reports will include updates on project results indicators and further updates when such information is readily available. The PIU will file an annual progress review report (a) outlining yearly implementation progress of the project and whether project implementation progress is satisfactory; (b) identifying risks, lessons, and changes to improve implementation; (c) summarizing progress toward achievement of the Results Framework and PDOs; (d) outlining a prospective view of the likelihood of achieving the outcomes and PDOs by project closing; and (e) outlining steps to improve the project's impact and sustainability.





### C. Sustainability

50. **The Government is strongly committed to the project, which is also welcomed by the municipalities.** Sustainability of the project is also expected to come from three areas supported by the project: (a) strengthening the existing system for planning and managing local road investments, (b) bringing a large number of road sections to a technical condition in which they can later be maintained at, (c) getting the Government's agreement to develop a central government policy toward local roads.

51. **The project also includes numerous specific measures to ensure sustainability.** Before starting the procurement of subprojects, an MoU will be signed by the respective municipalities, and before commencing civil works under each subproject, an Implementation Agreement will also be signed by the municipalities. These two documents define the duties that municipalities must carry out, including maintenance requirements, after the project roads are handed over. Additionally, the project will ensure sustainability of outputs by requiring that civil works designs, construction, and maintenance give adequate attention to the risks posed by natural hazards in North Macedonia, including floods, forest fires, landslides, extreme temperatures, and earthquakes.

## IV. PROJECT APPRAISAL SUMMARY

### A. Technical, Economic, and Financial Analysis (if applicable)

#### Technical Analysis

52. **The civil works will be limited to rehabilitation and repairs following the existing alignments.** While slight corrections and widening may occur where necessary to improve safety, resilience, and accessibility, the project will not finance any greenfield road construction. The project will also repair and upgrade drainage facilities, small bridges, and culverts as needed, and relocate and repair aboveground and belowground facilities to reduce the risk of flooding. The technical designs will include safety features such as guardrails, pavement markings, and speed reduction measures in urban and residential areas. In addition, designs will include features to improve safety and accessibility for nonmotorized road users and transit users, such as sidewalks; new or improved bus stops; bicycle lanes; lighting; and other facilities to improve safety of access to schools, health centers, and other public amenities. The project will install ducts and pipes for fiber optic cables, where appropriate.

53. **The MoTC and municipalities have identified the first-year road program, which is comprised of 83 km of road and includes 63 road sections from 43 municipalities.** The first-year works have an estimated of about EUR 14 million. The proposed sections are mostly in poor condition, while a few are in fair condition. The first-year program was developed through a four-step process.<sup>10</sup> As subsequent rehabilitation works are not yet defined, the appraisal focuses on the first-year program.

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<sup>10</sup> The four-step process is as follows: (a) the MoTC called for proposals from all 80 municipalities with clear guidance on prioritizing roads that link to a service – for example, schools and hospitals – or markets; (b) 43 municipalities submitted their candidate roads with designs and justifications to the MoTC at an estimated cost of EUR 40 million; (c) the MoTC performed a desk review of the technical designs and site visits to candidate roads (roads that did not have acceptable technical designs were excluded from the program and roads that had acceptable technical designs but needed improvement, the MoTC provided technical comments to the municipalities and asked the original designers to revise and resubmit the designs); and (d) the MoTC concluded the first-year road program at an estimated cost of EUR 14 million.



54. **Technical designs for the first-year program were prepared by the municipalities in accordance with the national guidelines for the design of public roads and Article 8.** The first-year works program includes category C and D local roads, defined as local roads with approximate lengths between 5 km and 30 km and average daily traffic volumes of 1,000–3,000 vehicles per day (VPD) and less than 1,000 VPD, respectively. The project roads have design speeds between 40 km and 60 km per hour.

55. **The project activities will bring substantial climate change co-benefits through civil works, maintenance, mode shift, and development of climate resilience-enhanced local road design guidelines.** A key requirement of the design process will be to improve the climate resilience of the project roads through the rehabilitation works in Component 2. These climate co-benefits will come from improved drainage, slope stabilization measures on mountainous roads, use of all-weather surfaces, and new bike lanes and sidewalks which encourages the shift to cleaner modes of transport. Moreover, rehabilitating the roads to bring them to a maintainable condition contributes to climate co-benefits as well, because effective and timely maintenance is the most important measure to mitigate damage in the event of extreme weather resulting from climate change, such as landslides and flooding. Component 1 will build capacity at both central and municipal levels to improve the planning, budgeting, and implementation of municipal road rehabilitation and maintenance activities, which will enhance long-term sustainability of the entire 9,000 km local road network by enabling local roads to withstand otherwise damaging climate events. In addition to incorporation of these considerations into the project designs, the proposed project will finance the development of climate-resilient design guidelines for local and low-volume roads, which will enhance the country's ability to adapt the entire 9,000 km local road network to risks posed by climate change.

## **Economic Analysis**

56. **The overall economic internal rate of return (EIRR) of the project first-year civil works is 31.6 percent and the net present value (NPV) is EUR 36.2 million, at a six percent discount rate.** The economic benefits of the first-year civil works program have been estimated using the Roads Economic Decision (RED) Model. Economic benefits comprise savings in vehicle operating costs, travel time costs, and road maintenance costs due to road improvements and social costs of CO<sub>2</sub> emissions computed over a 20-year evaluation period. Normal traffic benefits account for 76 percent of the project benefits, generated traffic benefits for 18 percent, and maintenance reduction benefits for 6 percent. CO<sub>2</sub> emissions costs account for 30 percent of the project costs. The sensitivity analysis shows that if construction costs were 20 percent higher and the project benefits were 20 percent lower, the overall EIRR would drop to 23.4 percent. The switching values analysis shows that construction costs would have to increase by 648 percent for the EIRR to reach 6 percent.

57. **The total gross CO<sub>2</sub> emissions over the 20-year evaluation period are estimated to be 277,686 tons under the 'without project' scenario and 375,217 tons under the 'with project' scenario.** The project is estimated to result in a net increase of CO<sub>2</sub> emissions of about 97,531 tons, or 4,877 tons per year, which is attributed to generated traffic with the project.

## **B. Fiduciary**

### **(i) Financial Management**



58. **The project will follow traditional FM arrangements. The PIU within the MoTC will oversee fiduciary responsibilities for the project.** The POM will detail implementation arrangements, including the division of responsibilities. The PIU will act as the overall procurement and FM unit of the project and, as such, will provide support and service to the primary implementing entity, the MoTC.

59. **The borrower, through MoTC, will provide annual audited project financial statements to the World Bank within six months of the end of each fiscal year and at the closing of the project.** The audit will be conducted by a private audit firm acceptable to the World Bank and in line with a terms of reference (ToR) agreed between the MoTC and World Bank and attached to the POM.

60. **The borrower, through MoTC, will submit a full set of unaudited interim financial reports (IFRs) consolidated for all components for each calendar quarter throughout the life of the project.** The IFRs will be due 45 days after the end of each quarter. The PIU will be responsible for preparation of the IFRs, as well as annual project financial statements. The format of the IFRs will be agreed between the MoTC and World Bank and attached to the minutes of negotiation and the POM. The PIU will ensure that the accounting software used for project accounting and reporting, including principal financial reports such as quarterly IFRs and annual project financial statements, is acceptable to the World Bank.

61. **The POM will describe the internal controls and procedures to be used by the project.** The POM will guide project FM and include detailed procedures and processes for planning and budgeting, accounting, financial reporting, internal controls, flow of funds, and external audits of the project. It should also describe roles and responsibilities, communication channels, and modes of communication between the MoTC and PIU. The procedures in the POM will be designed to minimize risk of errors, safeguard the project's assets, and ensure that project funds are used for their intended purposes. The World Bank will verify the application of these FM controls and procedures through supervision activities.

62. **The borrower, through MoTC, will open a Designated Account (DA) in foreign currency in the National Bank of North Macedonia (NBNM) for administering the project funds.** The DA will be managed by the PIU, which will process the payments as part of their fiduciary role. A transit treasury denar account will be opened within the Treasury Single Account (TSA) to serve as an operating account for withdrawals from the foreign currency account. The control environment in the NBNM is acceptable. Statement of expenditures-based disbursement will be applied, with advances being the primary disbursement method, but direct payments and reimbursement will be also allowed.

## **(ii) Procurement**

63. **The World Bank's procurement framework will remain the default procurement mechanism for the operation.** Procurement of contracts for goods, works, non-consulting and consulting services financed from the project will be carried out in accordance with the World Bank Procurement Regulations for Investment Project Financing Borrowers: Procurement in Investment Project Financing Goods, Works, Non-Consulting and Consulting Services, ('Procurement Regulations') issued in July 2016, and revised November 2017 and August 2018. Standard Procurement Documents (SPDs) will be used as required by the Procurement Regulations. The project will use the World Bank's Systematic Tracking of Exchanges in Procurement (STEP) platform. STEP will be used by the PIU initially to create and later to revise the Procurement Plan for the project, monitor performance, manage procurement procedures, and store related documentation for all steps for procurement under the project.



64. **The Project Procurement Strategy for Development (PPSD) will be the basis for the procurement arrangements under the project and will provide adequate justification for the selection methods in the Procurement Plan.** The PPCS will also provide information on procurement-specific risks and proposed mitigation measures. The proposed procurement and review thresholds applicable to the project shall be aligned with the World Bank's most recent thresholds for procurement approaches and methods, which is based on identified procurement risks and an assessment of the implementing agency procurement capacity. The procurement and review thresholds applied to the project are indicated in the PPCS, and the Procurement Plan for the first 18 months of the project has been agreed.

65. **The MoTC does not have experience managing procurement in accordance with the World Bank's procurement policies and procedures.** A procurement specialist was hired, with general experience in procurement and good knowledge of the English language. There will be multiple small contracts that are geographically dispersed. The PPCS elaborates on the strategy/grouping, approach, and methods for procurement of the relevant civil works contracts.

66. **Based on the assessment of capacity of the implementing agency, the risk for procurement is rated High.** It will be revisited during project implementation and may be updated based on capacity enhancement. Procurement implementation support missions will be carried out twice a year or on an as-needed basis. Contracts not subject to prior review by the World Bank, according to the Procurement plan, will be post reviewed by the World Bank's procurement specialist. Post review of contracts will be carried out once each year.

### 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

67. **The project environmental risk is rated Substantial, while the social risk is rated Moderate.** The project activities, including reconstruction and rehabilitation of local roads across 80 municipalities in North Macedonia, are not likely to have significant adverse risks or impacts on human populations and the environment. Impacts are expected to be site specific and can be addressed through conventional mitigation and management measures. The project is also not expected to have adverse impacts on environmentally or socially sensitive areas. Nonetheless, the environmental risk is rated Substantial because neither the MoTC nor majority of the participating municipalities have sufficient experience to manage the project (in its size and scope) in accordance with the World Bank's Environmental and Social Standards (ESSs).

68. **The potential risks and issues related to road rehabilitation are predictable and are expected to be temporary and/or reversible, low in magnitude, and site specific,** that is, impacts are unlikely to extend beyond the project footprint. These impacts commonly include possible temporary disruption of current traffic circulation, traffic safety, damage to access roads, dust nuisance, gaseous emissions, potential pollution of soil and water resources, brief disturbance to biotope, and momentary interference



to neighboring settlements through various operation activities. Off-site activities include quarry, borrow pit, and asphalt plant operations, which, if not managed properly, may cause localized adverse impacts.

69. **Potential social issues would mostly be related to small-scale land acquisition impacts because of rehabilitation and reconstruction nature of the investments.** Any land acquisition will be financed by the respective Participating Municipalities in accordance to the respective RAP. There will be no resettlement nor any impact on business or residential structures.

70. The ESSs shown in table 1 are relevant to the project.

**Table 1. ESSs Relevant to the Project**

ESSs	Relevance
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS 2: Labor and Working Conditions	Relevant
ESS 3: Resource Efficiency and Pollution Prevention and Management	Relevant
ESS 4: Community Health and Safety	Relevant
ESS 5: Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement	Relevant
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not currently relevant
ESS 8: Cultural Heritage	Relevant
ESS 9: Financial Intermediaries	Not currently relevant
ESS 10: Stakeholder Engagement and Information Disclosure	Relevant

71. **Given that the location of most road segments to be rehabilitated will be identified during implementation, except the first-year roads, the MoTC prepared an Environmental and Social Management Framework (ESMF), a Resettlement Policy Framework (RPF), and a Stakeholder Engagement Plan (SEP) before appraisal to facilitate screening, assessment, and management of environmental and social issues of subprojects during project implementation.** The ESMF describes the screening criteria for subprojects. It is expected that the Environmental and Social Management Plan (ESMP) checklists will be used for the less risky subprojects such as those involving only change of asphalt or drainage on an existing road. Site-specific ESMPs will be used in more complex rehabilitation/reconstruction activities and when the affected road segments are in more sensitive areas (for example, passing through natural habitats) or involve works on existing structures (for example, bridge rehabilitation). As the project will also include a CERC, the ESMF and RPF will provide environmental and social guidelines in the event the CERC is activated.

72. **As a sample, the MoTC prepared an ESMP checklist for two roads in the municipalities of Kocani and Krusevo and prepared an ESMP for two roads in the municipalities of Krusevo and Cheshinovo-Obleshevo.** The ESMF (including the invitation for public consultation), RPF, and SEP were disclosed on the MoTC's website on November 4, 2019. The two ESMPs' checklists and two ESMPs were disclosed on the MoTC's website and in the respective municipalities on November 5, 2019. Public consultation meetings for the ESMF, RPF, and SEP took place in Skopje on November 11, 2019. Public consultation meetings for the two ESMPs' checklists and two ESMPs took place in the respective municipalities on November 12, 13, and 14, 2019.



## **Citizen Engagement**

73. **The project will promote citizen engagement in the management of municipal roads at three levels:** (a) development of the capital improvement and maintenance plans, (b) selection of subprojects, and (c) development of interventions (for example, determine the nature of improvements). Local governments will publish the capital plans (or the transport sections) and solicit citizen feedback. After selection of subprojects, municipalities will engage citizens to discuss the mobility, safety, and resilience issues to be addressed by the subproject. The project will monitor the use of citizen engagement in both the capital planning exercise and the site-specific subprojects. The project will progress mainstreaming citizen engagement by monitoring the percentage of municipalities establishing a functioning channel for citizen feedback on the transport section of the capital improvement and maintenance plans.

74. **The project will establish three grievance redressal mechanisms (GRMs) and ensure public awareness of the project GRMs and their scope.** The project will establish a project-related GRM for receiving and addressing all project-related grievances, except grievances related to land and labor. In the event of land acquisition, temporary, locally based GRMs will be formed to address land-related grievances. The project will develop a labor-specific GRM to receive and address all grievances related to labor. The project will enable different channels of grievances such as through email, direct, telephone, and social networks as well as keep track of all grievances in a grievance register using procedures that appropriately protect the identities of affected individuals, whenever necessary.

## **Gender and Roma**

75. **To address gaps along gender and ethnicity lines, the project is undertaking an assessment involving Roma and non-Roma women and men and will incorporate their gender- and ethnicity-differentiated needs into road and public space design at the municipal level.**<sup>11</sup> Under Subcomponent 2.2, the project will select and engage at least two pilot municipalities to use a community engagement process to identify gender- and ethnicity-specific concerns and needs and develop a priority list of interventions to enhance mobility and road safety in response. Second, the project will explore opportunities to promote Roma women's and men's as well as non-Roma women's employment by amending the bidding documents to encourage contractors to enhance gender and ethnic diversity in their workforce. The project will benefit from the lessons learned in an ongoing Albania Regional and Local Roads Connectivity Project (P163239) in terms of amending the bidding documents to include gender-specific requirements (with a view to promoting women's employment in roadworks) and enhancing the capacity of the municipalities and contractors to reach out and recruit women in envisaged roadworks. Furthermore, the municipalities will train up to 100 women in transport sector roles. These roles will range from male-dominated occupations, such as bus drivers and machine operators that lay asphalt to more administrative roles in the office. The municipalities will collaborate with Vocational Education and Training (VET) institutions and municipality labor offices to reach out to and train women. This component will be open to all women regardless of their socio-economic background and will not be specific to Roma, although efforts will be made to engage Roma women through the partnerships with the National Roma Focal Point and the National Coordinative Body (NCB), which is an inter-ministerial body managed by the Ministry of Labor and Social Policy in charge of the implementation of the 2014-2020 Roma Strategy.

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<sup>11</sup> This technical assistance is financed by a Europe and Central Asia inclusion grant.





76. **The project will incorporate global lessons to address risks related to gender-based violence (GBV) and particularly sexual exploitation and abuse (SEA) in projects involving civil works.** The project will incorporate relevant recommendations of the World Bank's Good Practice Note 'Addressing Gender-based Violence in Investment Project Financing involving Major Civil Works'.<sup>12</sup> According to the World Bank's GBV risk assessment, the project is considered a 'Low' risk in relation to GBV. The assessment considers the country context, specifically related to the country's commitment to gender equality and national incidence of violence as well as project context including, but not limited to, factors such as project location, scale of the envisaged civil works, and the risk profile of the labor influx. The project will put in place measures that are commensurate with this risk category such as mapping GBV service providers in the project-affected and adjoining communities, enhancing the project GRM to integrate specific procedures for GBV, undertaking GBV-sensitive consultations with the project-affected communities, and strengthening contractor obligations to address GBV risks. Contractors will be required to undertake mitigation measures in accordance with international best practices, including adopting a Code of Conduct that defines staff and contractor obligations related to GBV, SEA, and workplace sexual harassment.

## V. GRIEVANCE REDRESS SERVICES

77. 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](http://www.inspectionpanel.org).

## VI. KEY RISKS

78. **The overall risk is rated Substantial.** Risks related to sector strategies and policies, technical design of the project, institutional capacity, Social and Environmental Standards, and fiduciary are all rated Substantial.

79. **Sector strategies and policies risk is rated Substantial.** To date, the national government has had little influence over municipal transport policy. The MoTC is still not expected to have a substantial role and there is little vision on how the central government should support development of the local roads sector. However, there is a risk that investment decisions could be politicized. These risks will be mitigated by working, as much as possible, at the municipal level, through the coordinating body of ZELS and by developing a proposal for the long-term governance structure for management of local road networks. The project will also provide technical assistance to establish simple systems to improve management of

<sup>12</sup> World Bank. 2018. <http://pubdocs.worldbank.org/en/399881538336159607/Good-Practice-Note-Addressing-Gender-Based-Violence.pdf>.



municipal road networks and prioritize road interventions in a transparent manner. Both the formula used to allocate project funds to municipalities, and subsequent subproject selection criteria, have been reviewed by the World Bank, are technically sound, and provide a transparent basis for decision making. Beyond this, the project deliberately adopts a flexible approach to technical assistance and capacity-building support to the central government. The RLRSP used this approach to respond to the evolving needs of the sector when the Fund for National and Regional Roads was transformed into the PESR, and the PESR's capacity-building needs were uncertain.

80. **Technical design of the project is rated Substantial.** The individual subprojects are relatively straightforward both in terms of their size and design requirements. It is not expected that there will be substantial risk. However, the project will be geographically dispersed, which presents a challenge in terms of measuring impact and implementation. Experience suggests that the quality of designs has been poor which adversely affects the procurement and implementation phases of the project. Procurement will also be challenging because the packaging of works will dictate the level of competition from local and regional contractors. The higher technical risk will be mitigated by providing strong project management support, including the appointment of a separate project management company if necessary, building the MoTC and municipal capacity, conducting contractor outreach, using a system of independent technical audit, integrating community participation in planning decisions, and relying on project-financed consultants for design and supervision responsibilities. Some designs may also come from the MSIP.

81. **Institutional capacity for implementation is rated Substantial.** The key risks arise from the choice of implementing agency and the municipal government's limited capacity to manage local roads. The implementing agency, MoTC, has limited experience in implementing projects of this nature and will be required to undertake a significant coordinating and technical role. These risks will be mitigated by establishing a dedicated PIU within the MoTC, staffed with competitively hired experts, and by providing additional training in World Bank FM, procurement, and Environmental and Social Framework (ESF) requirements. The PIU will include an expert with pavement and facility design experience. Drawing on lessons from prior local road projects in the country, the project will mitigate risks associated with the municipal government's limited capacity by selectively engaging municipalities in implementation, relying on design and supervision consultants, and using funding from the ongoing MSIP2 to procure designs for civil works.

82. **Environmental risk is rated Substantial.** The project activities related to reconstruction and rehabilitation of roads are not likely to have significant adverse risk or impacts on human populations and/or the environment. The impacts are expected to be site specific and can be addressed through conventional mitigation and management measures. It is not expected that the project will have adverse impacts on environmentally or socially sensitive areas. The potential risks and impacts and issues are predictable and are expected to be temporary and/or reversible, low in magnitude, site specific, without likelihood of impacts beyond the actual footprint of the project. Nonetheless, given that the MoTC and the participating municipalities have limited experience and capacity to implement the project in accordance to the new Environmental and Social Framework, the project is classified as a Substantial risk. These risks are likely to decrease once the project has hired social and environmental experts who gain experience in project implementation.

83. **Fiduciary risk is rated Substantial** considering the institutional capacity of the implementing agencies to manage fiduciary aspects of the project and lack of prior experience with World Bank projects.





Procurement will also be challenging because the project will involve many small but geographically disbursed civil works activities. The packaging of works will dictate the level of competition from local and regional contractors, and effective management of procurement risks will depend upon conducting contractor outreach and adapting to market conditions during implementation. The project Fiduciary risk rating will likely decrease after the PIU procurement and FM specialist are able to participate in training related to the Procurement Framework and World Bank FM requirements.



## VII. RESULTS FRAMEWORK AND MONITORING

### Results Framework

COUNTRY: North Macedonia

North Macedonia: Local Roads Connectivity Project

#### Project Development Objectives(s)

The project development objectives are to improve government capacity to manage local roads and improve access to markets and services.

#### Project Development Objective Indicators

Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
improve access to markets and services							
Number of markets and services connected by improved, safe and resilient local roads (Number)		0.00	40.00	80.00	120.00	160.00	200.00
Beneficiary satisfaction (gender disaggregated) with project roads (percentage) (Text)		N/A	80 percent express satisfaction	80 percent express satisfaction			80 percent express satisfaction
Improve capacity to manage local road networks							
Municipalities utilizing simple asset management methods developed under the project (Percentage)		0.00	25.00	50.00	65.00	65.00	65.00



Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
National policy adopted for local roads (Yes/No)		No					Yes

### Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Capacity Enhancement							
Municipalities using improved maintenance contracts (Percentage)		0.00	15.00	35.00	65.00	65.00	65.00
National local road inventory and condition database established (Yes/No)		No	No	Yes	Yes	Yes	Yes
Development of climate resilient design guidelines for local and low volume roads (Yes/No)		No	No	Yes	Yes	Yes	Yes
Rehabilitation of Local Roads and Community Facilities							
Road safety audits of road rehabilitation designs (Percentage)		0.00	0.00	20.00	40.00	60.00	70.00
Participating municipalities signed MoU with MoTC (Percentage)		0.00	100.00	100.00	100.00	100.00	100.00
Community-driven infrastructure pilots implemented (Number)		0.00	0.00	0.00	0.00	0.00	5.00



Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Roads rehabilitated (CRI, Kilometers)		0.00	80.00	150.00	250.00	350.00	450.00
Roads rehabilitated - rural (CRI, Kilometers)		0.00	30.00	75.00	125.00	175.00	225.00
Roads rehabilitated - non-rural (CRI, Kilometers)		0.00	30.00	75.00	125.00	175.00	225.00
Percentage of rehabilitated roads with newly installed empty ducts to accomodate fiber optic cable (Percentage)		0.00	7.00	15.00	25.00	35.00	50.00
Number of women trained by the municipalities in transport sector roles (Number)		0.00	0.00	20.00	30.00	50.00	100.00
Number of Roma employed in project works of whom 40 percent are Roma women (Number)		0.00	0.00	20.00	30.00	50.00	100.00
Roma Men (Number)		0.00	0.00	12.00	18.00	30.00	60.00
Roma women (Number)		0.00	0.00	8.00	12.00	20.00	40.00
Percentage of municipalities establishing a functioning channel for citizen feedback on the transport sections of capital improvement plans (Percentage)		0.00	5.00	10.00	40.00	50.00	60.00
<b>Project Implementation Support</b>							
Independent technical audits of planning, design, and construction (Yes/No)		No	No	Yes			Yes



**Monitoring & Evaluation Plan: PDO Indicators**

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Number of markets and services connected by improved, safe and resilient local roads	This indicator measures the number of social and commercial facilities connected by improved safe and resilient roads. An eligible connection would connect social facilities including health, education and government administration; and commercial facilities including agricultural markets and processing facilities, tourism sites, and industrial parks. To be considered safe and resilient, the road should have implemented recommendations from the road safety audits and resilient design features.	Semi-annual.	MoTC analysis	GIS analysis by MoTC	PIU and MoTC
Beneficiary satisfaction (gender disaggregated) with project roads (percentage)	The project will survey beneficiaries to assess their satisfaction with a sample of	Biennial	Surveys undertaken by	Surveys of community members following completion of	PIU and municipalities.



	improved local roads.		municipalities and PIU.	works.	
Municipalities utilizing simple asset management methods developed under the project	The indicator will measure the percentage of municipalities using the simple asset management methods developed by the project to formulate their annual road spending plans.	Semi-annual	PIU and MoTC	PIU and MoTC will collect data from municipalities through follow-up to the capacity building program.	PIU, Municipalities, and MoTC.
National policy adopted for local roads	MoTC will adopt a national policy for local roads. The policy will address key issues affecting management of local roads, such as oversight, funding, or institutional responsibilities.	Semi-annual	PIU	PIU monitoring and evaluation reports	PIU

#### Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Municipalities using improved maintenance contracts	The indicator measures the percentage of municipalities adopting the road maintenance framework contracts developed by the project.	Semi-annual	PIU monitoring and evaluation reports	PIU reporting and survey of municipalities	PIU
National local road inventory and condition database established	The project will create a local road condition	Semi-annual	PIU reports	PIU reporting	PIU



	database housed at the central government level in a manner compatible with the institutional arrangements of the country.				
Development of climate resilient design guidelines for local and low volume roads	Guideline for climate resilience enhanced design standards for local roads will be developed	Semi-annual	PIU monitoring and evaluation reports	PIU reporting	PIU
Road safety audits of road rehabilitation designs	The indicator measures the percentage of the project civil works designs will undergo a road safety audit and incorporate recommended changes before finalization of designs and construction/environmental permitting.	Semi-annual.	PIU monitoring and evaluation reports	PIU reporting	PIU
Participating municipalities signed MoU with MoTC	This indicator measures the percentage of municipalities wish to participate in project needs to sign MoU with MoTC	Semi-annual	PIU monitoring and evaluation reports	PIU monitoring	PIU, Municipalities
Community-driven infrastructure pilots implemented	The community driven infrastructure pilots will be implemented, including outreach, design, and	Semi-annual	PIU monitoring and evaluation	PIU reporting	PIU



	implementation/construction. The pilots will select activities through deeper engagement of vulnerable groups.		reports		
Roads rehabilitated		Semi-annual	PIU monitoring and evaluation reports	PIU reporting	PIU
Roads rehabilitated - rural		Semi-annual	PIU monitoring and reporting	PIU reports	PIU
Roads rehabilitated - non-rural		Semi-annual	PIU monitoring and reporting	PIU reports	PIU
Percentage of rehabilitated roads with newly installed empty ducts to accommodate fiber optic cable	The indicator measures the percentage of project roads that will have new ducts installed to enable future installation of fiber optic cable.	Semi-annual	PIU Reporting	PIU reporting	PIU
Number of women trained by the municipalities in transport sector roles	This indicator measures the number of women who will be trained in transport sector related jobs ranging from administrative roles to	Semi-annual	PIU monitoring and evaluation reports	PIU reporting	PIU





	more mid-skilled field occupations such as bus driving and/or asphalt paving operations.				
Number of Roma employed in project works of whom 40 percent are Roma women	This indicator measures the number of Roma men and women that the contractors will employ in their road works.	Semi-annual	PIU monitoring and evaluation reports	PIU reporting	PIU
Roma Men	Roma men employed in project works	Semi-annual	PIU monitoring and evaluation reports	PIU reporting	PIU
Roma women	Roma women employed in project works	Semi-annual	PIU monitoring and evaluation reports	PIU reporting	PIU
Percentage of municipalities establishing a functioning channel for citizen feedback on the transport sections of capital improvement plans	The project will promote citizen engagement in the management of municipal roads at three levels: (i) development of the capital improvement and maintenance plans, (ii) selection of sub-projects, and (iii) development of intervention (e.g. determine	Semi-annual	PIU monitoring and evaluation reports	PIU monitoring	PIU



	the nature of improvements). The project will monitor use of citizen engagement in both the capital planning exercise and the site-specific sub-projects.				
Independent technical audits of planning, design, and construction	The project will hire independent technical auditors who will assess a random proportion of roads to ensure that the quality of the planning, design and construction process is in accordance with agreed procedures. The independent audits will also be provide lessons that will support dialogue with the government.	Semi-annual	PIU monitoring and evaluation reports	PIU reporting	PIU



## ANNEX 1: DETAILED PROJECT DESCRIPTION

### COUNTRY: North Macedonia Local Roads Connectivity Project

1. **The project will be supported by a EUR 70 million IBRD loan.** The project will include the following four components: (a) Capacity Enhancement, (b) Rehabilitation of Local Roads and Community Facilities, (c) Project Implementation Support, and (d) Contingent Emergency Response Component (CERC).

#### **Component 1: Capacity Enhancement (EUR 2.7 million)**

1. **This component will finance technical assistance and capacity-building activities that will build local and central government capacity to manage local roads** by introducing a sound planning and governance framework and improved contracting approaches. This component will include the following two subcomponents.

##### *Subcomponent 1.1: Strengthening municipalities' planning and implementation capacity (EUR 2.0 million)*

2. **This subcomponent will finance a municipal capacity assessment to assess the strengths and weaknesses of the current system and propose a program for enhancing capacity, where appropriate.** It will also finance development of a range of simple road maintenance contracts that could be adapted to municipalities' diverse needs and encourage adoption of these contracts to improve utilization of their maintenance expenditures; assess how smaller municipalities can benefit from the economies of scale afforded by larger contracts, such as area-based maintenance contracts; and develop a simple Excel-based RAMS for maintenance and rehabilitation planning and support some of its data collection needs. Capacity building will be geared toward the existing capacity and human resources in municipalities and will focus on (a) collecting road inventory data, (b) using the simple RAMS to monitor road conditions and program road maintenance and rehabilitation, (c) redressing citizen grievances, (d) promoting transparency in decision making, and (e) executing road maintenance activities more efficiently through the improved contracting methods and inter-municipal cooperation where appropriate. The support will be streamlined by establishing working groups based on each municipality's willingness to implement the institutional reforms suggested in this project. Specific activities financed under this subcomponent include trainings, technical assistance consultancies, and establishment and financing of routine outreach to municipalities.

##### *Subcomponent 1.2: Capacity support to MoTC (EUR 0.7 million)*

3. **This subcomponent will finance technical assistance and capacity building to help the MoTC assume a stronger role in overseeing the development and quality of local roads.** This subcomponent will provide technical assistance support for (a) developing a central government policy for municipal roads; (b) defining a sustainable source of financing for both capital investment and maintenance; (c) reviewing and or updating the allocation formula used to transfer funding to municipalities through PESR; (d) developing a central government mechanism for monitoring municipal road conditions; (e) conducting road safety capacity review and providing recommendations for institutional change; (f) developing of climate-resilient design guidelines for local and low-volume roads; and (g) coordinating with other stakeholders, including ZELS and regional development agencies.



## Component 2: Rehabilitation of Local Roads and Community Facilities (EUR 65.3 million)

4. **This component will finance infrastructure investments in municipal roads and streets and related consultative and preparatory processes.** It will be implemented through two subcomponents.

### *Subcomponent 2.1: Road rehabilitation and improvement (EUR 62.8 million)*

5. **This subcomponent will finance rehabilitation of municipal roads and streets to improve their quality, safety, and resilience.** No greenfield construction will be financed. No greenfield construction will be financed. Loan proceeds will be allocated among 80 municipalities on a grant basis according to a criterion agreed among the MoTC, the municipalities, and the World Bank. The funds allocation criterion has been agreed that provides for a minimum allocation per municipality (EUR 500,000) with the remaining funds allocated based on a modified European Investment Bank (EIB) Project formula previously agreed with municipalities, which considers the size of the population, the number of settlements, the area of the municipality, and the number of registered vehicles. All municipalities were consulted during the development of this formula. The formula provides transparency, technical soundness, and good geographic coverage through the country. The cost of subprojects in each municipality should be equal to or below its allocated loan proceeds.

6. **The project will finance about 450 km of roads, or 5 percent of the local roads in the country. The loan will also finance supervision consulting services.** The technical designs could be prepared by municipalities, through MSIP technical assistance, or by consultants financed through the loan. Project designs will address vulnerability to climate change and other relevant natural hazard risks and undergo road safety audits. Where appropriate empty communication ducts will be installed along project roads to support the country's digitalization agenda as supported through the North Macedonia Digital Economy Project (NODE) (P170993).

7. **To accelerate project implementation, the first-year road rehabilitation works were selected from a pool of existing high-priority road rehabilitation designs prepared by municipalities.** The MoTC gave municipalities clear guidance to prioritize roads that link to services (for example, schools and hospitals) and markets. Municipalities submitted stamped engineering designs and statements describing the social and economic rationale for selection of each road section. The MoTC screened these proposals to verify technical adequacy of the civil works designs and readiness for implementation, eventually narrowing the list of first-year works to 83 kms, at an estimated cost of EUR 14 million as described in section IV.

8. **For subsequent phases, municipalities will use a systematic planning process, when readily available, or a participatory needs assessment that engages all groups in the community to identify the remaining local roads to be supported by the project.** As municipalities develop their capacity to use simple asset management methods, they will be expected to use the RAMS to aid in identification of project roads, subject to public participation and feedback. In addition to identifying project roads, the municipalities will use a participatory process to identify the specific challenges to be addressed in civil works designs (for example, a sidewalk is needed). These proposed interventions will be subject to the MoTC's and World Bank's oversight and economic cost-benefit analysis. Municipalities will be encouraged to select roads that connect to other World Bank projects, including buildings benefitting from the Public Sector Energy Efficiency Project (P149990) and agricultural value chain facilities developed under the Agriculture Modernization Project (P168014).



9. **To receive support from Subcomponent 2.1, each participating municipality will be required to sign a MoU with the MoTC before commencement of procurement of its first subprojects, and sign an Implementation Agreement with the MoTC for each sub-project before commencement of civil works.** The MoU and Implementation Agreement will outline the responsibilities of the MoTC and municipalities during and after project implementation and will commit municipalities to undertake certain actions that support the PDOs.

*Subcomponent 2.2: Community-driven infrastructure pilot (EUR 2.5 million)*

10. **This subcomponent will provide financing to selected municipalities to pilot priority investments identified by the communities to enhance their mobility and road safety.** This will help ensure that the road investments (financed under Subcomponent 2.1) optimize local mobility. As the projects will be demand driven, it is not known what the specific supplemental investment will support but mobility plans will be developed in conjunction with the communities to prioritize interventions. The mobility plans will identify solutions for the community's broader mobility needs in relation to public transport services, active mobility, resilience, security, and safety. Plans may include specific measures to improve safety such as sidewalks, bike paths, supplementary street lighting, bus shelters, junction improvement, road calming, and/or pedestrian crossings; to improve climate resilience such as slope stabilization and spot drainage works; and for improved public transportation and school bus services. Some funding will be dedicated to vulnerable groups including Roma. Municipalities selected to participate in the pilot will have a demonstrated need for, and commitment to, community-driven projects that serve the needs of vulnerable groups. The findings of the ongoing Roma and Gender Assessment<sup>13</sup> will inform interventions in this subcomponent to better serve Roma and women's mobility needs.

**Component 3: Project Implementation Support (EUR 2.0 million)**

11. **This component will support project costs of the PIU under the MoTC. The PIU has already been jointly established for this project and the Western Balkans TTFP (P162043).** Expenses that may be financed by this activity include, but are not limited to, staff positions such as the PIU director, procurement consultant, FM consultant, social and environmental consultant, and civil engineers. Although project implementation is centralized at this PIU, close collaborations with 80 municipalities is required. This component will also finance appointment of independent technical auditors who will assess a random sample (5 to 10 percent) of roads to ensure that the quality of the planning, design, and construction process is in accordance with agreed procedures. The independent audits will also provide lessons that will support continuous improvement to the institutional elements of the project.

**Component 4: Contingent Emergency Response Component (CERC) (EUR 0 million)**

12. Following an eligible crisis or emergency, the borrower may request the World Bank to reallocate project funds to support emergency response and reconstruction. In such an event, this component would finance emergency response and reconstruction by drawing from the uncommitted loan resources of the other project components.

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<sup>13</sup> This technical assistance is funded by a World Bank Europe and Central Asia inclusion grant.



## ANNEX 2: ECONOMIC ANALYSIS

### COUNTRY: North Macedonia Local Roads Connectivity Project

#### A. Economic Evaluation Assumptions

1. **To ensure that the project generates sufficient economic benefits to warrant the investments, a cost-benefit analysis was conducted for the project roads using RED.**<sup>14</sup> The analysis computes annual road agency and users' costs for each project alternative over a 20-year evaluation period, comparing the proposed project investment program with the conditions without such investment. 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 CO<sub>2</sub> emissions. The resources consumed and vehicle speeds are related to traffic volume and composition, road surface type, geometric characteristics, and roughness. Normal traffic benefits consider a normal traffic growth rate and generated traffic benefits use half the associated vehicle operating and travel time cost savings, as is standard practice.

2. **The quantified benefits computed by RED comprise savings in vehicle operating costs, travel time costs, road maintenance costs because of road improvements, and a reduction in costs of CO<sub>2</sub> emissions with the project.** The following assumptions were applied in the RED calculations:

- A discount rate of 6 percent and an evaluation period of 20 years. All costs are stated in constant 2019 euros.
- The annual average daily traffic increase rate is 4.0 percent per year for all vehicles over the evaluation period, based on estimated gross domestic product (GDP) growth projections<sup>15</sup> and an assumed elasticity of 1.2.
- The social cost of carbon is US\$40 per ton equivalent in 2020, increasing to US\$60 per ton equivalent in 2039, based on the low scenario for the social cost of carbon derived from the 2017 World Bank guidance note on shadow price of carbon in economic analysis.<sup>16</sup>

3. **Table 2.1 presents the vehicle fleet economic unit, basic characteristics, and the average traffic composition on the project roads.** The economic costs reflect the costs net of duties and tax.<sup>17</sup>

<sup>14</sup> RED is a software tool for the analysis and appraisal of road maintenance, improvements, and investment decisions on low-volume roads.

<sup>15</sup> The GDP has grown on average at 3.1 percent per year from 2005 to 2019 in constant prices. The International Monetary Fund predicts that the GDP will increase on average by 3.2 percent per year from 2020 to 2024.

<sup>16</sup> 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 CO<sub>2</sub> emission of the project.

<sup>17</sup> Figures based on PESR estimates.



**Table 2.1. Vehicle Fleet Economic Unit Costs and Characteristics**

	<b>Car</b>	<b>Truck Light</b>	<b>Truck Medium</b>	<b>Truck Heavy</b>	<b>Bus</b>
New vehicle cost (EUR)	10,000.00	30,000.00	60,000.00	90,000.00	100,000.00
New tire cost (EUR)	80.00	180.00	220.00	260.00	260.00
Fuel cost (EUR /liter)	0.62	0.66	0.66	0.66	0.66
Lubricant cost (EUR/liter)	3.50	3.50	3.50	3.50	3.50
Maintenance cost (EUR/hour)	3.00	3.00	3.00	3.00	3.00
Crew cost (EUR/hour)	9.00	3.50	3.50	7.00	7.00
Overhead cost (EUR/year)	400.00	800.00	800.00	800.00	500.00
Interest rate (%)	6.00	6.00	6.00	6.00	6.00
Work time (EUR/hour)	2.40	2.40	2.40	2.40	2.40
Annual utilization (km)	12,000.00	30,000.00	50,000.00	60,000.00	70,000.00
Annual utilization (hours)	500.00	1300.00	2000.00	2000.00	1,750.00
Service life (years)	10.00	8.00	10.00	12.00	7.00
Number of passengers (#)	2.30	1.00	1.00	1.00	40.00
Operating weight (tons)	1.30	2.55	7.50	19.15	15.23
Traffic composition (%)	33	33	21	7	6

4. **The project roads will be reconstructed, paved, or receive periodic maintenance under the project.** The economic evaluation was done for a sample of 63 roads, totaling 83.3 km, for which there is road condition, traffic, and roadworks costs data. The project roads are either paved or unpaved roads in poor or very poor condition, with an average of 9.0 m per km (international roughness index) and carry around 823 VPD.<sup>18</sup>

5. **Table 2.2 presents the basic current roads characteristics.**

<sup>18</sup> Condition were estimated by visual observation; the traffic data were according to the designed traffic level for its respective road class



**Table 2.2. Basic Road Characteristics**

No.	Road (Description)	Municipality	Length (km)	Terrain (Type)	Surface (Class)	Surface Condition	Traffic (AADT <sup>19</sup> )
1	Local road: Dolen Lipovik-Goren Lipovik	Konce	0.89	C	X	Very poor	650
2	Part of street 4 and street 14	Krivogastani	0.34	A	Y	Very poor	650
3	Street SIROKA, sidewalks, and atmospheric drainage system	Mogila	1.00	A	X	Poor	1,600
4	Local road: Josifovo - Kalkovo	Valandovo	0.80	A	Y	Poor	650
5	Street Krusevska	Bogdanci	1.32	A	X	Poor	1,600
6	Street in Vasilevo	Vasilevo	0.42	A	Y	Poor	650
7	Local road: Prnalija - Supurge	Radovish	2.90	C	Y	Very poor	650
8	Local street Tosija Paunov left carriageway	Kocani	0.96	A	X	Very poor	1,600
9	Local street Aleksandar Mitev in village Trkanje	Kocani	0.55	A	Y	Very poor	650
10	Local street Marshal Tito from km 0+000 to km 0+240 in village Orizari	Kocani	0.24	A	Y	Very poor	650
11	Local street Marshal Tito from km 0+240 to km 0+454 in village Orizari	Kocani	0.21	A	Y	Very poor	650
12	Local street Pance Karagjozov	Stip	0.40	B	X	Poor	1,150
13	Local road from locality PODMOL to locality BONCHE	Prilep	5.48	B	Y	Poor	650
14	Local road Prilep - Dabnica	Prilep	4.17	B	Y	Poor	650
15	Local road L-600195522 from link with Regional road P2338 to Polciste	Prilep	3.60	B	Y	Poor	650
16	Local road village Tarinci to village Dolni Balvan	Karbinci	1.60	A	X	Poor	1,150
17	Part of the street Ilindenska and part of the street General Apostolski	Zrnovci	0.55	A	X	Poor	650
18	Local street Zivko Firfov from km 0+000 to km 0+876.17	Kisela Voda	0.88	A	X	Poor	1,150
19	Local street Pariska	Karpos	0.41	A	X	Poor	1,150
20	Local road street No. 3 in village Umlena	Pehcevo	0.34	B	Y	Poor	650
21	Local streets Orce Nikolov and Skopska	Delcevo	0.25	A	X	Poor	650
22	Part of the local street Ostrec	Delcevo	0.05	B	X	Poor	650
23	Streets in village Dvoriste	Berovo	2.91	B	X	Poor	650
24	Local street from the Access Road to the Health Centre in Kratovo	Kratovo	0.48	B	X	Poor	650





No.	Road (Description)	Municipality	Length (km)	Terrain (Type)	Surface (Class)	Surface Condition	Traffic (AADT <sup>19</sup> )
25	Street: Goce Stojcevski	Tetovo	0.29	A	X	Poor	650
26	Street: Jane Sandanski	Tetovo	0.22	A	X	Poor	650
27	Street "ASNOM" - Ohrid from str. Turisticka to str. Karpos Vojvoda	Ohrid	0.63	A	X	Poor	650
28	Street "Abas Emin" - Ohrid	Ohrid	1.10	A	X	Poor	650
29	Access Road - street no. 532 from km 0+000 to km 1+888.82	Ilinden	1.90	A	X	Poor	650
30	Access local road to monastery Sveta Petka I v. Mirkovci	Cucer-Sandevo	0.12	A	X	Poor	850
31	Local Street: Radisanska Levo	Cucer-Sandevo	0.28	A	X	Poor	850
32	Local Street: Hristijan Todorovski - Karpos	Cesinovo-Oblesevo	0.55	A	Y	Poor	850
33	Branch of the street "Partizanska" - Demir kapija	Demir Kapija	1.42	A	X	Poor	850
34	Streets no. 1, no 2, and no. 3 in the village of Bistrenci	Demir Kapija	0.37	A	Y	Poor	850
35	Streets no. 1 and no 2 in the village of Koresnica	Demir Kapija	0.23	A	Y	Poor	850
36	Local Road: Municipal Road P29371-Sloestica	Demir Hisar	2.30	B	X	Poor	850
37	Local Road: Vardino-Sv. Toma	Demir Hisar	1.88	B	Y	Poor	850
38	Local Road Mavrovi Anovi-Vrben	Mavrovo I Rostusa	7.20	B	X	Poor	850
39	Local Road in the village of Moroista	Struga	1.78	A	X	Poor	850
40	Local Road: Podgorci-Labunista	Struga	1.38	A	X	Poor	850
41	Local Road: v. Strelci-v.Sutovo	Kicevo	1.10	A	X	Poor	850
42	Street Marsal Tito from river Susica to regional road Prilep-Kicevo	Kicevo	1.30	A	X	Poor	850
43	Local Road to the village of Zubovce	Vrapciste	2.12	A	X	Poor	850
44	Local Road: Meseista-Volino	Debarca	3.28	B	X	Poor	850
45	Street Tovarnik - Kamnik	Gazi Baba	0.42	A	X	Poor	850
46	Local Street: Juznomoravski brigadi - Gazi Baba	Gazi Baba	1.04	A	X	Poor	850
47	Local Street: Street 20	Gjorce Petrov	1.20	A	Y	Poor	850
48	Local Street: Street Anton Keckarov	Gjorce Petrov	0.30	A	X	Poor	850
49	Local Street: Street Kuzman Sapkarev	Gjorce Petrov	0.35	A	X	Poor	850
50	Local Road in the village Kopacin Dol	Zelino	0.90	B	X	Poor	850
51	Local Road: Palatica-Ozormiste	Zelino	1.60	A	X	Poor	850
52	Local Road: Dolno Karaslari-Gorno Karaslari	Veles	0.92	B	X	Poor	850



No.	Road (Description)	Municipality	Length (km)	Terrain (Type)	Surface (Class)	Surface Condition	Traffic (AADT <sup>19</sup> )
53	Local Road: village of Novacani from km 0+000 to km 0+849.06	Veles	0.85	B	Y	Poor	850
54	Local street: river Treska-City Cemetery	Makedonski Brod	1.20	B	X	Poor	850
55	Local street: Ilindenska	Makedonski Brod	0.15	A	Y	Poor	850
56	Local street: Dame Gruev	Makedonski Brod	0.09	A	Y	Poor	850
57	Local Road near village Cera	Mak. Kamenica	1.35	B	Y	Poor	850
58	Local Road in the village of Otlja-Street 1	Lipkovo	1.53	A	X	Poor	850
59	Local Road: v. Nikustak-v. Vistica	Lipkovo	3.90	A	X	Poor	850
60	Local Road in the village of Pcinja	Kumanovo	0.95	B	X	Poor	850
61	Local Road: Novo Seljane-Kosmatak-Murgas	Kumanovo	5.02	B	X	Poor	850
62	Acesss Road to the New City Cemetery	Kriva Palanka	0.46	B	Y	Poor	850
63	Local Road - Duracka Reka Route 1	Kriva Palanka	0.87	B	Y	Poor	850
<b>Total</b>			<b>83.30</b>				<b>823</b>

Note: Terrain Type: A = Flat; B = Hilly; C= Mountainous.

Surface Class: X = Paved; Y = Unpaved.AADT = Annual Average Daily Traffic.



6. **The total financial capital cost for the roadworks is estimated at EUR 14.2 million.** The roadworks will bring the project roads to good condition roads with a paved standard. The average unit cost of the roadworks is EUR 170,418 per km.

7. **Table 2.3 presents the roadworks description and costs and resulting economic indicators.**

**Table 2.3. Roadworks Economic Evaluation Indicators**

Road No.	Roadworks Description	Total Cost (EUR, millions)	Total Cost per km (EUR, millions)	EIRR (%)	NPV (EUR, millions)	NPV/Investment Ratio
1	Reconstruction	0.29	329,967	13.7	0.19	0.6
2	Paving	0.06	170,307	62.5	0.37	6.4
3	Reconstruction	0.22	218,404	31.2	0.55	2.5
4	Reconstruction	0.20	252,219	33.6	0.57	2.8
5	Reconstruction	0.25	186,253	36.2	0.76	3.1
6	Reconstruction	0.05	110,128	53.8	0.24	5.2
7	Reconstruction	0.36	122,908	43.5	1.42	4.0
8	Periodic Maintenance	0.10	105,775	61.4	0.62	6.1
9	Paving/Widening	0.11	205,111	52.5	0.58	5.1
10	Paving/Widening	0.04	150,278	40.3	0.13	3.6
11	Paving/Widening	0.03	122,502	48.7	0.12	4.6
12	Reconstruction	0.20	493,979	13.9	0.13	0.7
13	Reconstruction	0.77	140,659	55.7	4.24	5.5
14	Reconstruction	0.49	117,529	66.0	3.31	6.7
15	Reconstruction	0.40	110,523	51.5	1.97	5.0
16	Reconstruction	0.21	132,955	31.9	0.55	2.6
17	Reconstruction	0.09	156,890	19.5	0.10	1.2
18	Periodic Maintenance	0.38	435,285	8.9	0.08	0.2
19	Periodic Maintenance	0.23	550,842	12.7	0.12	0.5
20	Reconstruction	0.06	169,655	46.8	0.26	4.4
21	Reconstruction	0.03	135,641	22.5	0.05	1.5
22	Reconstruction	0.02	399,353	11.5	0.01	0.4
23	Reconstruction	0.54	185,398	16.0	0.46	0.9
24	Reconstruction	0.10	201,177	14.6	0.07	0.7
25	Reconstruction	0.12	427,822	11.0	0.05	0.4
26	Reconstruction	0.11	498,932	9.0	0.03	0.2
27	Reconstruction	0.26	407,121	11.7	0.12	0.5
28	Reconstruction	0.38	348,634	14.1	0.26	0.7
29	Reconstruction	0.53	278,225	10.2	0.17	0.3
30	Reconstruction	0.02	175,884	24.0	0.04	1.7
31	Reconstruction	0.04	156,541	26.8	0.09	2.0
32	Reconstruction	0.22	403,760	28.6	0.50	2.3
33	Reconstruction	0.24	168,992	24.9	0.43	1.8
34	Reconstruction	0.06	153,623	51.2	0.28	4.9
35	Reconstruction	0.09	397,285	29.0	0.21	2.3
36	Reconstruction	0.29	126,555	32.0	0.76	2.6
37	Reconstruction	0.24	129,328	58.1	1.40	5.8
38	Reconstruction	1.07	148,735	27.5	2.23	2.1



Road No.	Roadworks Description	Total Cost (EUR, millions)	Total Cost per km (EUR, millions)	EIRR (%)	NPV (EUR, millions)	NPV/Investment Ratio
39	Reconstruction	0.26	146,896	28.4	0.57	2.2
40	Reconstruction	0.18	132,558	31.3	0.46	2.5
41	Reconstruction	0.14	127,734	32.4	0.37	2.6
42	Reconstruction	0.20	150,347	27.8	0.42	2.1
43	Reconstruction	0.24	114,981	35.7	0.74	3.0
44	Reconstruction	0.34	104,074	38.4	1.14	3.3
45	Reconstruction	0.14	328,014	12.5	0.07	0.5
46	Reconstruction	0.34	325,130	12.6	0.18	0.5
47	Reconstruction	0.18	148,028	53.0	0.92	5.2
48	Reconstruction	0.04	128,251	32.3	0.10	2.6
49	Reconstruction	0.19	538,960	12.4	0.10	0.5
50	Reconstruction	0.13	149,425	27.4	0.28	2.1
51	Reconstruction	0.31	193,370	21.9	0.45	1.5
52	Reconstruction	0.13	138,682	29.4	0.29	2.3
53	Reconstruction	0.10	113,181	65.8	0.64	6.7
54	Reconstruction	0.46	387,287	9.8	0.14	0.3
55	Reconstruction	0.03	218,637	50.3	0.16	4.9
56	Reconstruction	0.01	147,876	53.1	0.07	5.2
57	Reconstruction	0.19	141,181	53.5	0.99	5.2
58	Reconstruction	0.18	120,259	34.3	0.53	2.9
59	Reconstruction	0.50	128,657	32.2	1.31	2.6
60	Reconstruction	0.17	183,211	22.5	0.27	1.5
61	Reconstruction	0.61	121,653	33.2	1.67	2.7
62	Reconstruction	0.05	111,930	66.5	0.35	6.8
63	Reconstruction	0.17	192,453	55.0	0.91	5.4
Total		14.20	170,418	31.6	36.62	2.6

## B. Economic Evaluation Results

8. The overall EIRR of the project is 31.6 percent and the NPV is EUR 36.6 million corresponding to an NPV/investment cost ratio of 2.6. Normal traffic benefits account for 76 percent of the project benefits, generated traffic benefits for 18 percent, and maintenance reduction benefits for 6 percent. CO<sub>2</sub> emissions costs account for 30 percent of the project costs. Table 2.4 presents the distribution of the project net benefits.

**Table 2.4. Distribution of Net Benefits**

Item	Net Benefits (US\$, millions)
Capital works	-11.6
CO <sub>2</sub> emissions	-5.0
Maintenance works	3.0
Normal traffic	40.9
Generated traffic	9.4
<b>Total project</b>	<b>36.6</b>



9. The sensitivity analysis shows that the project is economically justified even if the construction cost is 20 percent higher or if the project benefits are 20 percent lower or both (see table 2.5). If construction costs were 20 percent higher and the project benefits were 20 percent lower, the overall EIRR would drop to 23.4 percent. The switching values analysis shows that construction costs would have to increase by 648 percent for the EIRR to reach 6 percent.

**Table 2.5. Sensitivity Analysis Results**

	Sensitivity Analysis			
	Base	A: Costs + 20%	B: Benefits – 20%	C: A and B
EIRR (%)	31.6	26.7	27.8	23.4
NPV (EUR, millions)	36.62	34.29	30.3	28.0

### **C. GHG Accounting**

10. The total gross CO<sub>2</sub> emissions over the 20-year evaluation period under the ‘without project’ scenario are estimated at 277,686 tons and under the ‘with project’ scenario at 375,217 tons, resulting in a net increase of CO<sub>2</sub> emissions of about 97,531 tons, or 4,877 tons per year. The increase in CO<sub>2</sub> emissions is attributed to the generated traffic with the project.

### **D. Public Sector Financing**

11. Private sector financing is not available to undertake a local roads project of this nature in North Macedonia. Public sector financing is the appropriate vehicle for financing the proposed roadworks because the civil works costs cannot be recovered through tariffs due to the low traffic of the project roads.



## ANNEX 3: IMPLEMENTATION ARRANGEMENTS

### COUNTRY: North Macedonia Local Roads Connectivity Project

#### Project Institutional and Implementation Arrangements

##### Project Administration Mechanisms

- 1. Project implementation will be centralized in the MoTC.** This strategy manages risks associated with the complexity of working with 80 municipalities and builds on lessons learned from other projects involving local roads. The MoTC is also the Government's preferred implementing agency given its oversight role of local roads. The MoTC is currently implementing an EIB-financed project on municipal water supply systems, which is also implemented at the municipal level. The proposed project and the TTFP (P162043) will be the first World Bank projects implemented by the MoTC and will use a joint PIU. While this arrangement may reduce ownership and capacity building at the municipal level, centralizing these functions is vital to reducing the transaction costs of working with 80 municipalities. It is also expected that the PIU staff will closely work with municipalities to support institutional capacity building at the municipal level.
- 2. The MoTC has established a joint PIU that is currently staffed with a director, two procurement specialists, one financial specialist, and four transport infrastructure engineers.** The PIU will report directly to the MoTC and is located on the MoTC's premises. The appointment of social and environmental PIU staff is pending.<sup>20</sup> The PIU will manage the day-to-day activities under the proposed project and would be responsible for overall project coordination and supervision, procurement and contract management, FM, monitoring and evaluation, coordination with municipalities and ZELS, and capacity-building activities.
- 3. All the participating municipalities will also take an active role in the project as the ultimate owners of the roads.** The municipalities will be responsible for subproject selection in accordance with agreed criteria, will provide supervisory staff during the implementation phase, and will commit to maintain the road following hand over of the project. The municipalities will be expected to disclose prioritized annual and multiannual investment and maintenance plans and adopt the various maintenance tools developed under the project. To receive the support from the project, municipalities will be required to sign an MoU with the MoTC before the commencement of procurement of its first subprojects, and sign an Implementation Agreement with the MoTC for each sub-project before commencement of civil works. The MoU and Implementation Agreement will outline the responsibilities of the MoTC and municipalities during and after project implementation and commit municipalities to undertake certain actions that support the PDOs. The MoU will commit the municipalities to undertake various activities including the following: (a) participate in project training opportunities and reform activities, (b) use the simple road asset management methods and a transparent budget planning process, (c) maintain a road

<sup>20</sup> Currently, the MoTC and participating municipalities do not have environmental or social specialists. Given the lack of capacity, an environmental and social consultant has been engaged to help the MoTC prepare the project in accordance with requirements of the World Bank's Environmental and Social Framework. The MoTC will hire environmental and social specialists who will provide full-time project implementation support and support capacity building to municipalities before the start of project implementation.



inventory, (d) adopt use of contracts for maintenance, (e) ensure project approval by Municipal Council and by the mayor and availability of necessary construction permits, (f) participate in informal works supervision, (g) issue opinion about completed works before final payment, and (h) maintain project roads after handover.

4. **A POM will be prepared for the project.** The POM will outline the internal procedures to be followed by the PIU in relation to FM, procurement management, and ESF. The POM will clearly define selection criteria for subprojects for Subcomponent 2.1, community-driven infrastructure pilots for Subcomponent 2.2, and the processes for the MoTC oversight of subproject selection. The POM will also include the MoU template, requirements for road design standards, and the requirement to include interventions to improve climate resilience.

### **Financial Management**

#### **Staffing**

5. **The PIU's FM specialist is responsible for implementing the project's FM responsibilities.** The FM specialist was selected competitively. Depending on the workload, the PIU may strengthen its FM capacity by hiring additional FM staff during project implementation. The POM will contain ToRs outlining the FM staff's detailed descriptions of duties. The implementing entity is responsible for the project's FM arrangements and its staff will be responsible for providing the necessary expertise to comply with the World Bank procedures for accounting, reporting, and disbursement.

#### **Planning and Budgeting**

6. **The project's budget will be prepared the PIU.** The FM specialist at the PIU will prepare project planning and budgeting and manage project funds in an optimal manner in regard to funds allocation, liquidity, and overall performance. Variance between actual and budgeted figures should be monitored on a regular basis, appropriately analyzed, and corrective actions taken. The PIU will prepare in-year financial plans and cash forecasts based on the project's budget, thus ensuring adequate liquidity management and withdrawal of funds.

#### **Accounting System**

7. **Acceptable accounting software administered by the PIU needs to be procured and used for project accounting and reporting.** The accounting records should include appropriate analytics of expenditures according to contracts and each specific payment.

8. **The project will follow cash basis of accounting** (cash-based International Public Sector Accounting Standards), recording transactions when the actual payment is done rather than when they are incurred. There should be appropriate backup of accounting records on external drives, as well as appropriate security regulation regarding access and editing rights of the financial information.

#### **Internal Controls**

9. **Procedures and controls to be applied to the project are detailed in the POM.** Some of the key internal controls to be applied to the project should include:



- (a) Appropriate authorizations and approvals of all purchases, relevant documentation, transactions of payments, and so on;
- (b) Segregation of duties as different persons are responsible for different phases of a transaction;
- (c) Reconciliations between project accounting records and other relevant sources of information (Client Connection, bank account statements, and so on) performed at least monthly by the senior finance management officer; and
- (d) Original documentation supporting all project transactions properly filed.

### **Contract Management**

10. **Contract implementation will be monitored in the software and checks and controls of the total contract amount and payments due will be checked before making each payment under the contracts.** The respective technical staff and financial department will review and approve invoices and the accompanying documentation against contracts provisions for ceilings, dynamics of payments, and quality of deliverables.

### **Financial Reporting**

11. **Unaudited IFRs, which will include financial information relating to the whole project, will be prepared for each quarter and will be due 45 days after the end of each quarter.** The IFRs will be prepared in line with cash basis of accounting. The format of the IFRs will be agreed between the MoTC and World Bank and attached to the PoM. The PIU will be responsible for preparation of the IFRs, as well as annual project financial statements. The reporting currency will be the Euro. The IFRs are intended to comprise the following reports (subject to any modifications agreed with the implementing entity between the date of the report and negotiations):

- (a) Cash receipts and payments, including comparison of budgeted versus actual amounts
- (b) Uses of funds by activity
- (c) DA statement
- (d) Accounting policies and explanatory notes

### **External Audit**

12. **The annual audit of the project financial statements will be conducted by a private audit firm acceptable to the World Bank.** The audit report will be submitted to the World Bank no later than six months after the end of the audited period. The audit will be conducted by a private audit firm acceptable to the World Bank and in line with agreed ToR. The ToR will be agreed between the MoTC and World Bank and attached to the POM. In addition, the audit will review compliance with procedures laid out in the POM. The audit of project financial statements will be funded by the project. The audited project financial statements will be posted by the client on the MoTC's website within two months of the World Bank's acceptance of the audit report.





### Financial Management Covenants

13. The FM covenants for the project will be as follows:
- (a) MoTC to maintain an adequate FM system
  - (b) MoTC to prepare unaudited IFRs for each calendar quarter and deliver to the World Bank no later than 45 days after the end of the reporting quarter
  - (c) Annual project financial statements audited by a private audit firm acceptable to the World Bank and such audit to be delivered to the World Bank not later than six months after the end of the audited period

### Funds Flow and Disbursement Arrangements

14. **Methods of disbursements.** The project will be completely financed by an IBRD loan. The currency of disbursements will be the same as the loan currency. The loan proceeds will be disbursed based on standard World Bank disbursement methods for investment projects, including advances, direct payments, reimbursements, and special commitment. Once the project becomes effective, a DA will be opened in the NBNM, to which the funds will be transferred. A transit treasury denar account will be opened within the TSA to serve as an operating account for withdrawals from the foreign currency account. The DA will be managed and operated by the PIU with the authorized signatories, which include a ministerial (MoTC) representative. All transfers will take place through the DA with a corresponding transfer of the denar equivalent amount from the foreign exchange account.

15. **The procedures relating to the flow of funds, including paths for authorization and approval of payments, will be described in detail in the updated FM section of the POM.** The procedures should clearly describe all steps of the process, as well as authorized signatories for administering the account funds, data flow between the PIU and other beneficiaries of the project, including authorization/validation process from their side of transactions. Bank statements indicating turnover and balance in the transit treasury denar subaccount and the bank statements indicating balance in the DA will be submitted daily. The PIU will include balances on all project-related accounts in the quarterly IFRs.

16. **The ceiling for the DA will be indicated in the Disbursement and Financial Information Letter that will be EUR 10 million.** 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 would follow standard World Bank procedures as described in the Disbursement Handbook. Bank statements of the DA, which have been reconciled, would accompany all replenishment requests.

17. **The World Bank will require either copies of the original documents evidencing eligible expenditures ('Records') or summary reports of expenditure ('Summary Reports').** For direct payments, records would be required. Records include documents such as invoices and receipts. Further details on the project disbursement arrangements will be provided in the Project Disbursement Letter. In all cases, the PIU is required to maintain original documents evidencing eligible expenditures and making them available for audit or inspection. These documents should be maintained for at least two years after receipt by IBRD of the audit report and for a period required by local legislation.



## Procurement

18. **Summary of capacity assessment.** The direct responsibility for project management, coordination, and implementation, including procurement and FM under the project, will be delegated to a PIU. The PIU will be established within the MoTC. A seasoned procurement specialist needs to be hired, with general experience in procurement, preferably in managing procurement under projects financed by international financial institutions, as well as good knowledge of the English language. The MoTC does not have either experience in implementing World Bank-financed projects or in managing procurement in accordance with the World Bank's procurement policies and procedures. While the project is not expected to finance complex subprojects, there will be multiple small contracts that are geographically dispersed. This is a potential challenge for the procurement process, and the PPSD elaborates on the strategy/grouping, approach, and methods for procurement of the relevant civil works contracts. The potential risks for procurement and the proposed mitigating measures are included in the PPSD. Table 3.1 describes the key risks and risk owners.

19. **Procurement policy and procedures.** The World Bank's procurement framework will remain the default procurement mechanism for the operation. Procurement of contracts for goods, works, and non-consulting and consulting services financed by the project will be carried out in accordance with the World Bank Procurement Regulations.<sup>21</sup> SPDs will be used as required by the Procurement Regulations. The project is subject to using the World Bank's new electronic platform STEP.

20. **The General Procurement Notice** will be published by the PIU internationally in United Nations Development Business through STEP. It will also be published nationwide through the e-procurement platform of the North Macedonia Public Procurement Bureau. Publication of specific procurement notices for the contracts included in the Procurement Plan will follow the same pattern as relevant.

21. **PPSD.** As required by the Procurement Framework, a PPSD has been prepared. The PPSD is the basis for the procurement arrangements under the project, including defining the procurement and review thresholds; the relevant market approach for each major category such as goods, works, and consulting and non-consulting services; and the applicable procurement procedures. These are reflected in the project Procurement Plan. The PPSD addresses how procurement activities will support the development objectives of the project and deliver the best value for money under a risk-based approach. It also provides an adequate justification for the selection methods in the Procurement Plan. The level of detail and analysis in the PPSD are proportional to the risk, value, and complexity of the project procurement. The PPSD also describes the procurement-specific risks and the proposed mitigation measures and outlines the applicable procurement and prior review thresholds. The proposed review thresholds for procurement were defined in accordance with the provisions for high-risk projects presented in the most recent Solutions and Innovations in Procurement (SIP) Group–Europe and Central Asia Regional Procurement Maximum Thresholds, effective January 2, 2014, and revised on November 15, 2016.

22. **Procurement Plan.** A Procurement Plan for the first 18 months of project implementation has been developed. The Procurement Plan provides information on procurement packages, selection methods, procurement approaches, and procurement procedures for each contract to be financed under the project. The detailed Procurement Plan will be prepared in STEP and will be published on the World

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<sup>21</sup> <http://pubdocs.worldbank.org/en/178331533065871195/Procurement-Regulations.pdf>.



Bank's external website. Any updates to the Procurement Plan will be submitted to the World Bank for review and 'no objection' through STEP.

23. **World Bank's procurement oversight.** The World Bank will exercise its procurement oversight through a risk-based approach comprising prior and post review and independent procurement reviews, as appropriate. The post reviews will be conducted on the procurement processes undertaken by the MoTC/PIU to determine whether they comply with the requirements of the Legal Agreement. Procurement implementation support missions will be carried out twice a year, or on an as-needed basis. Contracts not subject to prior review by the World Bank, according to the Procurement Plan, will be post reviewed by the World Bank's procurement specialist assigned to the project. Post review of contracts shall be carried out once yearly. At a minimum, one out of five contracts will be randomly selected for post review.

24. **Anticorruption measures.** Each implementing agency, through its PIU, will follow the World Bank's anticorruption measures and will not engage the services of firms and individuals debarred by the World Bank. The list of such debarred firms and individuals is available at <http://www.worldbank.org/html/opr/procure/debarr.html>.

**Table 3.1. Procurement-specific Risks**

Risk Description	Description of Mitigation	Risk Owner
The Procurement Specialist at the PIU is not very experienced with the World Bank projects	Training will be provided by the World Bank's Procurement Specialist, assigned to the Project  The PIU Procurement Specialist will attend formal training courses on specific topics and/or formal training, including regional, organized by the World Bank.	MoTC/PIU
Use of World Bank's procurement policies and procedures, SPDs, and relevant procurement applications (STEP)	Formal and/or on-the-job training of relevant staff in the PIU on the respective procurement policies and procedures and applications	MoTC/PIU
Need to clearly elaborate the roles and responsibilities of various stakeholders in the project management	Elaborate roles and responsibilities in detail in the POM	MoTC/PIU
STEP is a new operational tool and the MoTC has no experience in the tool.	The World Bank's Procurement Specialist, assigned to the Project, will organize either on-the-job or a formal training for the relevant PIU staff who will use STEP and refresher trainings on an as-needed basis	MoTC/PIU



Complexity of the activities	Procurement activities will comprise mostly rehabilitation, reconstruction, and upgrading of rural and local roads and streets and does not present implementation challenges.	MoTC/ Contractors
Quality of designs	For the designs that are prepared by municipalities, the PIU experts shall carry out quality check and give recommendations for improvement of the design documents. The project can also finance design company to support municipalities in preparation of high-quality design documents.	MoTC/ Municipalities
Contract management and supervision	Supervision consulting companies will be financed out of the loan and contracted for direct supervision according to the local legislation. Additional supervision/contract management will be carried out by the owners of the municipal infrastructure in accordance with the construction permits	MoTC/ Municipalities
Availability of the contractors	Tenders will be published through all regular channels. Companies known for good performance will be invited to participate	MoTC/ Market
Packaging and sequencing	Packaging will be made based on geographic location. Sequencing of the works to manage traffic flow is an option that will be required as part of the bids. First-year contracts amount will be estimated to be compatible with the capacity of the available contractors	MoTC
Social and environmental safeguards	Social and Environmental Safeguard specialist at the PIU will monitor the social and environmental issues. Municipalities will also nominate responsible municipal environmental and social officers that will directly oversee the implementation of the mitigation measures by the Contractors and will report to the PIU Social and Environmental expert on the mitigation measures implemented or any environmental or social issue that may jeopardize the works contracts implementation. During project life, the World Bank's safeguard procedures and policies will be strictly followed.	MoTC/ Municipalities
Time and Cost overrun	Contingencies need to be kept available. Cost estimates should be based on market prices. Period of	MoTC/WB



	<p>construction works should be based on construction seasons available at the time of signing.</p> <p>Supervision of works need to be available for the entire period from contract signing until the project closing date.</p>	
Lack of procurement performance indicators linked to inability of collecting and interpreting data	Invest in systematic approach of procurement processing, and introducing STEP system as a tool to tracking and monitoring	MoTC
Land expropriation	Land expropriation is a component that can jeopardize the execution of the works. To minimize the risk, the PIU/MoTC should identify and evaluate the expropriation risk.	MoTC/ Municipalities
Cost control	The MoTC should request improvement of the quality of the design documents and update of the construction unit prices, whenever is the case, exercise proper due diligence on variations during the works execution and update the geodetic data.	MoTC/ Municipalities

#### Environmental and Social (including safeguards)

25. **The project activities, including reconstruction and rehabilitation of local roads across 80 municipalities in North Macedonia, are not likely to have significant adverse risk or impacts on human populations and the environment.** Impacts are expected to be site-specific and can be addressed through conventional mitigation and management measures. The project is also not expected to have adverse impacts on environmentally or socially sensitive areas. Nonetheless, the environmental risk is rated Substantial because neither the MoTC nor majority of the participating municipalities have sufficient experience to manage the project (in its size and scope) in accordance with the World Bank's ESSs. The social risk is rated Moderate.

26. **The potential risks and issues related to road rehabilitation are predictable and expected to be temporary and/or reversible, low in magnitude, and site specific,** that is, impacts are unlikely to extend beyond the project footprint. These impacts commonly include possible temporary disruption of current traffic circulation, traffic safety, damage to access roads, dust nuisance, gaseous emissions, potential pollution of soil and water resources, brief disturbance to biotope, and momentary interference to neighboring settlements through various operation activities. Off-site activities include quarry, borrow pit, and asphalt plant operations, which, if not managed properly, may cause localized adverse impacts.

27. **Potential social issues would mostly be related to small-scale land acquisition impacts because of rehabilitation and reconstruction nature of the investments.** There will be no resettlement nor any impact on business or residential structures.



28. **Given that the location of most road segments to be rehabilitated are not known**, except the first-year roads, the MoTC prepared an ESMF, an RPF, and an SEP before appraisal to facilitate screening, assessment, and management of environmental and social issues of subprojects during project implementation. The ESMF describes the screening criteria for subprojects. It is expected that the ESMP checklists will be used for less risky subprojects such as those involving only change of asphalt or drainage on an existing road. Site-specific ESMPs will be used in more complex rehabilitation/reconstruction activities and when the affected road segments are in more sensitive areas (for example, passing through natural habitats) or involve works on existing structures (for example, bridge rehabilitation). As the project will also include CERC, the ESMF and RPF will also provide environmental and social guidelines in the event the CERC is activated.

29. **As a sample, the MoTC prepared an ESMP checklist for two roads in the municipalities of Kocani and Krusevo and prepared an ESMP for two roads in the municipalities of Krusevo and Cheshinovo-Obleshevo.** The ESMF (including the invitation for public consultation), RPF, and SEP were disclosed on the MoTC's website on November 4, 2019. The two ESMP checklists and two ESMPs were disclosed on the MoTC's website and in respective municipalities on November 5, 2019. Public consultation meetings for the ESMP, RPF, and SEP took place in Skopje on November 11, 2019. Public consultation meetings for the two ESMPs' checklist and two ESMPs took place in the respective municipalities on November 12, 13 and 14, 2019.

### **Citizen Engagement**

30. **The project will promote citizen engagement in the management of municipal roads at three levels:** (a) development of the capital improvement and maintenance plans, (b) selection of subprojects, and (c) development of interventions (for example, determine the nature of improvements). Component 1 will build municipal capacity to engage citizens in capital improvement and maintenance planning process for municipal roads and transport services, leading to the selection of subprojects for the sequential years during the implementation. Local governments will publish the capital plans (or the transport sections) and solicit citizen feedback. After selection of subprojects, municipalities will engage citizens to discuss the mobility, safety, and resilience issues to be addressed by the subproject. The project will monitor use of citizen engagement in both the capital and maintenance planning exercise and the site-specific subprojects. The indicator proposed is the percentage of municipalities establishing a functioning channel for citizen feedback on the transport section of the capital improvement and maintenance plans.

31. **The project will establish three GRMs and ensure public awareness of the project GRMs and their scope.** The project will establish a project-related GRM for receiving and addressing all project-related grievances except of grievances related to land and labor. In the event of land acquisition, temporary, locally based GRMs will be formed to address land-related grievances. The project will develop a labor-specific GRM to receive and address all grievances related to labor. The project will enable different channels of grievances such as through email, direct, telephone, and social networks as well as keep track of all grievances in a grievance register using procedures that appropriately protect the identities of affected individuals, whenever necessary.

### **Monitoring and Evaluation**



32. **Project results monitoring will be carried out by the PIU within the MoTC.** Municipalities will collaborate with the PIU by sharing information, where necessary, to monitor the project outcomes. The POM will elaborate the details and specifics of the institutional and implementation arrangements, including monitoring and evaluation activities.

33. **The PIU is expected to file four quarterly implementation reports each year and one comprehensive annual monitoring and evaluation report.** The quarterly reports will summarize progress and issues related to procurement, FM, implementation of activities, social and environmental risk and impact management, and results monitoring. The focus of the quarterly reports is to enable communication that supports problem identification and resolution. The format of the quarterly reports will be defined by the PIU, and the quarterly reports will include updates on project results indicators when such information is readily available. The PIU will file an annual progress review report (a) outlining yearly implementation progress of the project and whether project implementation progress is satisfactory; (b) identifying risks, lessons, and changes to improve implementation; (c) summarizing progress toward achievement of the Results Framework and PDOs; (d) outlining a prospective view of the likelihood of achieving the outcomes and PDOs by project closing; and (e) outlining steps to improve the project's impact and sustainability.





## ANNEX 4: IMPLEMENTATION SUPPORT PLAN

### COUNTRY: North Macedonia Local Roads Connectivity Project

#### Strategy and Approach for Implementation Support

1. **The implementation support will focus on implementation of risk mitigation measures identified for key political and governance risks and sector strategy and policy risks, which are rated Substantial.** Implementation support missions, including field visits, will be carried out semiannually and will focus on (a) technical aspects of works, (b) capacity strengthening, and (c) FM.
2. **Technical aspects of works.** The World Bank will undertake technical reviews and site visits to support technical aspects of implementation undertaken by the design and supervision consultants and the limited number of municipalities with stronger capacity in these areas. With close cooperation and review, the planned rehabilitation works will be carried out from the design phase until completion. Engineering inputs will be provided to all designs to ensure proper technical specifications and appropriate consideration of road safety and climate vulnerability. During bid evaluation, the review will ensure fair assessment of the technical aspects of bids. During rehabilitation and commissioning, technical supervision will be provided to ensure that technical, environmental, and social contractual obligations are met. The team's engineer will conduct site visits on a semiannual basis throughout project implementation.
3. **Capacity strengthening.** As a part of the PDO, capacity strengthening will receive substantial focus during implementation and related supervision. This will include regular dialogue with project municipalities and line ministries on the progress related to road infrastructure planning, investment prioritization, maintenance, and integration of road safety measures in design practices and consideration of climate resilience in designs. This will also include activities supporting implementation of rural development programs such as 100 villages program and similar rural development programs.
4. **FM.** As part of its project implementation support missions, the World Bank will conduct risk-based FM within the first-year of project implementation and then at appropriate intervals based on the assessed risk and performance of the project. The first FM supervision is planned to be conducted in May/June 2020. During project implementation, the World Bank will supervise the project's FM arrangements in the following ways: (a) review the project's unaudited IFRs as well as the project's annual audited financial statements and the auditor's management letters and remedial actions recommended in the auditor's management letters and (b) assessment of continued adequacy of overall FM systems and controls for project implementation during the World Bank's on-site missions. The following key areas will be considered: (a) project accounting and internal control systems; (b) budgeting and financial planning arrangements; (c) disbursement arrangements and financial flows, including counterpart funds, as applicable; and (d) any incidences of corrupt practices involving project resources.

#### Implementation Support Plan and Resource Requirements

- The implementation support missions will involve road engineering, road safety, procurement, and environmental and social specialists. The FM specialist will participate in





supervision missions at least once annually. Particular focus will be on supervising the implementation of civil works and the road safety measures.

- Environmental and social management capacity will be continuously monitored by the World Bank environmental and social specialists who will participate regularly in project implementation support missions and provide inputs directly to the client during the ESMP, preparation of Requests for Proposals, and works supervision.
- The midterm review of the project, expected to take place in the first quarter of 2021, will include technical workshops to discuss road safety, climate-resilient infrastructure, and design challenges, as well as any lessons learned in support of rural development through technical assistance.

**Table 4.1. Implementation Support Plan**

Time	Focus	Skills Needed
First 12 months	<ul style="list-style-type: none"><li>• Procurement of consultancy services</li><li>• Preparation of bidding documents</li><li>• Procurement of civil works</li></ul>	<ul style="list-style-type: none"><li>• Road engineering</li><li>• Procurement</li><li>• Environmental and Social management</li><li>• Project management</li><li>• Road safety</li><li>• Climate resilience infrastructure</li><li>• Rural development</li></ul>
12–48 months	<ul style="list-style-type: none"><li>• Procurement and civil works</li><li>• Implementation of consultancy services</li></ul>	<ul style="list-style-type: none"><li>• Road engineering</li><li>• Procurement</li><li>• Environmental and Social management</li><li>• Project management</li><li>• Road safety</li><li>• Rural development</li><li>• Geographic Information System</li></ul>
Other	—	—

**Table 4.2.. Skills Mix and Estimated Number of Trips**

<b>Skills Needed</b>	<b>Number of Staff Weeks (per Year)</b>	<b>Number of Trips (per Year)</b>
Task team leader	8	2–3
Road engineer	6	2–3
Road safety specialist	3	1–2
Transport economist	2	1
FM specialist	4	2
Procurement specialist	6	2–3
Environment management specialist	3	2–3
Social development specialist	2	1–2



## ANNEX 5: GENDER AND ROMA

### COUNTRY: North Macedonia Local Roads Connectivity Project

1. **Research demonstrates that transport sector investments and policies are often developed with insufficient appreciation of the needs and preferences of diverse beneficiaries.** Failure to anticipate the beneficiary needs often results in investment priorities, sector policies, and facility designs that have at least some socially regressive outcomes; for example, project benefits may disproportionately favor certain groups and fail to meet the needs of others, particularly vulnerable users. To rectify this, all levels of the transport sector (engineering and planning, construction, and transport services/operations) must attempt to understand the different needs of diverse beneficiaries. In the context of North Macedonia, the sector must give specific attention to gender differences and the needs of Roma.
2. **Although there is limited research on gender differences in transport in North Macedonia, discussions with women's groups in the country confirm that women face disproportionate barriers to accessing and using road infrastructure and public transport services.** These discussions were broadly consistent with research elsewhere showing that women and men tend to have different needs and preferences for transport and road infrastructure, for example, which roads are to be improved, what the width of pavements should be, where traffic lights are most needed, or where bus stops should be located. These differences relate to their respective economic activities; care responsibilities; fear of violence; and preferences in relation to reliability, affordability, and accessibility of urban transportation. For example, travel patterns disaggregated by gender indicate that women and men use transport differently in terms of purpose, location, time, and mode of travel. Fewer women own and drive private vehicles than men, while women instead rely more on public transport. When public transport is unavailable, unreliable, or unaffordable, women often travel by foot concentrating around their households, and the diverse range of tasks women undertake may restrict their mobility or add to their travel times.
3. **There is evidence that Roma are less likely to access transport facilities in general and are less likely to use private automobiles.** Roma across all countries in the Western Balkans report that they are more likely to walk rather than use public transport or a personal vehicle, which may affect their ability to access markets and job opportunities.<sup>22</sup> About 35 percent of Roma women and 46 percent of Roma men, ages 6–24, surveyed in North Macedonia who are not in school and who have completed compulsory education report that they are not attending school because of economic factors, specifically, the cost of education or related expenses, such as transport. These findings are important for this project as they indicate transport's role to human capital formation and participation in the labor market.
4. **The preliminary findings of focus groups undertaken with Roma women, Roma men and non-Roma women in Sveti Nikole and Kumanovo municipalities** confirmed that all road users face mobility challenges due to inadequate road and public transport infrastructure and services. However, as women have greater reliance on public transport and bear disproportionately more childcare responsibilities than men, they are more affected by inadequate road and transport systems than men are. Many women in focus groups expressed concerns about the lack of safe pedestrian infrastructure such as pavement and crossings; infrequent and unreliable bus service; lack of information on routes and timetables; and

<sup>22</sup> World Bank. 2019. *Breaking the Cycle of Roma Exclusion in the Western Balkans*. Note: After economic factors, marriage is cited as an important reason for not attending school among Roma women.



dilapidated bus stops. Some women reported that due to lack of traffic safety, they do not allow their children to walk to school alone, even when children are of the age when they can commute independently. Others shared concerns about the lack of street lighting and other road safety features which sometimes prompts them to modify their walking routes to get to the desired destination safely. The focus groups confirmed the need for enhanced community consultations with both women and men and particularly with women. More granular analysis of their needs for roads and public transport is currently being undertaken and will be available for the implementation phase of the project.

5. **As employment in the transport sector remains male dominated, women—and especially Roma women—may not be able to benefit from project-related job opportunities on an equal footing with men unless the project anticipates and addresses their needs.** For instance, Roma women's participation in the labor force is as low as 30 percent in the 15–64 age category in North Macedonia, compared to 56 percent for Roma men of the same age. The gender gap in labor force participation is also high among non-Roma (36 percent for women and 60 percent for men), indicating the need for the projects to explore how to economically empower both Roma and non-Roma women while recognizing that Roma women are facing overlapping barriers. The transport and construction sectors also exhibit particularly large gender gaps. Women comprise only 12.8 percent of the workforce in transport and storage and only 6.6 percent of the workforce in the construction sector. The employment data for the transport sector are not disaggregated by ethnicity and sex, but it is assumed that the share of Roma and particularly Roma women in the sector is negligible, if any. In addition to the fact that roadworks could be an income-generating opportunity for women, especially in rural areas where they are overrepresented in subsistence farming, diversifying human resources could be beneficial for contractors and municipalities as the sector seems to be in need of suitably qualified labor.

6. **To address gaps along gender and ethnicity lines, the project will undertake an assessment involving Roma and non-Roma women and men and incorporate their gender- and ethnicity-differentiated needs into road and public space design.** Under Subcomponent 2.2, the project will select and engage at least two pilot municipalities to use a community engagement process to identify gender- and ethnicity-specific concerns and needs and develop priority interventions that enhance residents' mobility and road safety. Furthermore, the project will promote Roma women's and men's as well as non-Roma women's employment by amending the bidding documents and requiring contractors to enhance gender and ethnic diversity in their respective workforce. The bidder will be required to submit a Gender and Roma Action Plan that explains how it will recruit and retain non-Roma women, Roma women, and Roma men in its workforce, and provide a list of concrete actions that it will put in place to build a more inclusive workplace culture. Should the bidder be successful, the Borrower will discuss any revisions to the plan before the contract commences.

7. **Each bidder will commit to employing a minimum of three Roma in road works (including at least one Roma woman)** if the area that it serves includes Roma population. As the project anticipates mobilizing 36 to 48 contractors, the total number of Roma employed in the project will range from 108 to 144 Roma, including 36 to 48 Roma women. While the target may seem insignificant, this in fact is an ambitious endeavor given challenges and current statistics reported in the analysis. This approach follows the lessons learned in an ongoing Albania Regional and Local Roads Connectivity project (P163239) in terms of amending the bidding documents to include gender-specific requirements (with a view to promoting women's employment in road works).



8. **Lastly, the municipalities will train up to 100 women in transport sector roles.** These roles will range from male-dominated occupations, such as bus drivers and machine operators that lay asphalt to more administrative roles in the office. The municipalities will collaborate with Vocational Education and Training (VET) institutions and municipality labor offices to reach out and train women. This component will be open to all women regardless of ethnicity and will not be specific to Roma women, although special efforts will be made to engage Roma women through the partnerships with the National Roma Focal Point and the National Coordinative Body (NCB) managed by the Ministry of Labor and Social Policy in charge of the implementation of the 2014-2020 Roma Strategy.
9. **These efforts respond to the CPF (Report No: 135030-MK) for North Macedonia** and its Focus Area II that supports the development of human capital and skills to boost labor productivity and more inclusive labor market participation and its corporate priorities from gender to citizen engagement. These activities are also closely aligned with other higher-level objectives such as, 2014-2020 Roma Strategy of the Republic of North Macedonia, which set improving conditions and the opportunities for employment of the Roma community as its strategic priority.
10. **The project's results framework includes two indicators to measure progress promoting Roma and women's participation in employment in the transport sector:** (a) at least 100 Roma are employed in project works of which 40 percent are women; and (b) at least 100 women are trained by the municipalities in transport sector roles.