

FOR OFFICIAL USE ONLY

Report No: PADHI00416

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF US\$80 MILLION
FROM THE CRISIS RESPONSE WINDOW

TO THE

REPUBLIC OF RWANDA

FOR AN

EMERGENCY CONNECTIVITY RESTORATION PROJECT

APRIL 12, 2024

Transport Global Practice
Eastern and Southern Africa Region

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

CURRENCY EQUIVALENTS

(Exchange Rate Effective {February 29, 2024})

Currency Unit = Rwandan Francs

US\$1 = RWF 1,276

FISCAL YEAR

July 1 – June 30

Regional Vice President: Victoria Kwakwa

Regional Director: Wendy E. Hughes

Country Director: Keith E. Hansen

Practice Manager: Almud Weitz

Task Team Leader: Aguiratou Savadogo-Tinto

ABBREVIATIONS AND ACRONYMS

AM	Accountability Mechanism
AWPB	Annual And Work Plan and Budget
CCDR	Country Climate and Development Report
CERC	Contingent Emergency Response Component
CO ₂	Carbone Dioxide
CPF	Country Partnership Framework
DFIL	Disbursement And Financial Information Letter
DG	Director General
DRC	Democratic Republic of The Congo
E&S	Environment and Social
EAC	East African Community
Eoi	Expression of Interest
ESCP	Environmental and Social Commitment Plan
ESIA	Environment and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESS	Environment and Social Standards
FRDP	Feeder Roads Development Project
GBVPRAP	Gender-Based Violence Prevention and Response Action Plan
GDP	Gross Domestic Product
GGCRS	Green Growth and Climate Resilience Strategy
GHG	Green House Gas
GoR	Government Of Rwanda
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
HEIS	Hands-On Expanded Implementation Support
IA	Implementing Agency
IC	Identified As Consultant
ICB	International Competitive Bidding
IDA	International Development Association
IFMIS	Integrated Financial Management Information System
IFRs	Interim Financial Reports
IPF	Investment Project Financing
JICA	Japan International Cooperation Agency
KLP	Kigali Logistic Platform
KMs	Kilometers
KPIs	Key Performance Indicators

LMP	Labor Management Plan
LVTP	Lake Victoria Transport Program
MINECOFIN	Ministry of Finance and Economic Planning
MINEMA	Ministry in charge of Emergency Management
MININFRA	Ministry of Infrastructure
MTR	Midterm Review
M&E	Monitoring and Evaluation
NBIA	New Bugesera International Airport
NDC	Nationally Determined Contributions
OAG	Office of the Auditor General
OPBRC	Output and Performance Based Road Contracting
PCE	Private Capital Enabling
PDO	Project Development Objective
PIM	Project Implementation Manual
PPSD	Project Procurement Strategy for Development
PRAMS	Procurement Risk Assessment and Management System
PS	Permanent Secretary
QCBS	Quality and Cost-Based Selection
RECOR	Rwanda Emergency Connectivity Restoration Project
REMA	Rwanda Environment Management Authority
RF	Resettlement Framework
RFA	Rwanda Forest Authority
RMF	Road Maintenance Fund
RNP	Rwanda National Police
ROW	Right of Way
RP	Resettlement Plan
RPPA	Rwanda Public Procurement Authority
RTDA	Rwanda Transport Development Agency
RURA	Rwanda Utilities Regulatory Authority
RWB	Rwanda Water Board
SPIU	Single Project Implementation Unit



TABLE OF CONTENTS

DATASHEETii

I. STRATEGIC CONTEXT 1

 A. Country Context 1

 B. Sectoral and Institutional Context 2

 C. Relevance to Higher Level Objectives 5

II. PROJECT DESCRIPTION..... 6

 A. Project Development Objective 6

 B. Project Components 7

 C. Project Beneficiaries 9

 D. Results Chain..... 10

 E. Rationale for Bank Involvement and Role of Partners..... 10

 F. Lessons Learned and Reflected in the Project Design..... 11

III. IMPLEMENTATION ARRANGEMENTS 12

 A. Institutional and Implementation Arrangements..... 12

 B. Results Monitoring and Evaluation Arrangements..... 13

 C. Sustainability 13

IV. PROJECT APPRAISAL SUMMARY 14

 A. Technical, Economic, and Financial Analysis 14

 B. Fiduciary 19

 C. Legal Operational Policies 20

 D. Environmental and Social 21

V. GRIEVANCE REDRESS SERVICES 22

VI. KEY RISKS..... 22

Monitoring & Evaluation Plan 25

ANNEX 1: Implementation Arrangements and Support Plan 28

 A. Institutional and Implementation Arrangements 28

ANNEX 2: Climate Adaptation and Mitigation 36

ANNEX 3: List of Damaged Roads and Bridges per District 38



DATASHEET

BASIC INFORMATION

Project Beneficiary(ies) Rwanda	Operation Name Rwanda-Emergency Connectivity Restoration Project		
Operation ID P504023	Financing Instrument Investment Project Financing (IPF)	Environmental and Social Risk Classification Substantial	Process

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"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input checked="" type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternative Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Expanded Implementation Support (HEIS)

Expected Approval Date 25-Apr-2024	Expected Closing Date 29-Sep-2028
Bank/IFC Collaboration No	

Proposed Development Objective(s)

The Project Development Objective is to restore the connectivity in areas of Rwanda affected by floods and landslides in a climate-resilient manner.

Components



Component Name	Cost (US\$)
Component 1: Rehabilitation/repair of damaged transport infrastructure in a resilient and safe manner	89,680,000.00
Component 2: Environment and social risk management, Community Engagement and awareness campaign	2,900,000.00
Component 3: Implementation support, monitoring, capacity building	1,100,000.00
Component 4: Contingent Emergency Response	0.00

Organizations

Borrower: Republic of Rwanda
 Implementing Agency: Ministry of Infrastructures, Rwanda Transport Development Agency

PROJECT FINANCING DATA (US\$, Millions)**Maximizing Finance for Development**

Is this an MFD-Enabling Project (MFD-EP)? No
 Is this project Private Capital Enabling (PCE)? No

SUMMARY

Total Operation Cost	93.68
Total Financing	93.68
of which IBRD/IDA	80.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Development Association (IDA)	80.00
IDA Credit	80.00

Non-World Bank Group Financing

Counterpart Funding	13.68
National Government	13.68



IDA Resources (US\$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
Crisis Response Window (CRW)	80.00	0.00	0.00	0.00	80.00
Total	80.00	0.00	0.00	0.00	80.00

Expected Disbursements (US\$, Millions)

WB Fiscal Year	2024	2025	2026	2027	2028
Annual	5.00	20.00	25.00	24.00	6.00
Cumulative	5.00	25.00	50.00	74.00	80.00

PRACTICE AREA(S)

Practice Area (Lead)

Transport

Contributing Practice Areas

CLIMATE

Climate Change and Disaster Screening

Yes, it has been screened and the results are discussed in the Operation Document

SYSTEMATIC OPERATIONS RISK- RATING TOOL (SORT)

Risk Category

Rating

1. Political and Governance	● Moderate
2. Macroeconomic	● Moderate
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Moderate



5. Institutional Capacity for Implementation and Sustainability	● Moderate
6. Fiduciary	● Moderate
7. Environment and Social	● Substantial
8. Stakeholders	● Moderate
9. Overall	● Moderate

POLICY 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

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

E & S Standards	Relevance
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS 10: Stakeholder Engagement and Information Disclosure	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



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

Legal Covenants

Sections and Description

The Recipient shall prepare and furnish to the Association not later than March 31 of each Fiscal Year during the implementation of the Project (beginning in calendar year 2025), a consolidated work plan and budget containing

Without limitation on the provisions of Part E of this Section, the Recipient shall prepare and furnish to the Association the first proposed Annual Work Plan and required under the Project not later than one month after the Effective Date

No later than twenty-four (24) months after the Effective Date, the Recipient shall, in conjunction with the Association, carry out a mid-term review of the Project (the “Mid-term Review”), covering the progress achieved in the implementation of the Project

Conditions

Type	Citation	Description	Financing Source
Effectiveness	the Recipient has prepared and adopted the Project Implementation Manual in the form and substance satisfactory to the Association	Client to prepare and adopt the PIM	IBRD/IDA



I. STRATEGIC CONTEXT

A. Country Context

1. **Rwanda’s topography, lack of natural resources, limited domestic market, and rural-centric population are prevalent features of the country’s physical and economic landscape.** With four countries bordering Rwanda: the Democratic Republic of the Congo (DRC) in the west, Uganda in the north, Tanzania in the east, and Burundi in the south, the country’s options for spatial development are constrained by the geographic challenges of a landlocked, mountainous country. Rwanda’s high population density of 13.2 million inhabitants occupying an area of 26,338 km² (503 inhabitants/km²) is relatively young with a median age of 19.¹ Consequentially, job creation has favored services that embody higher-than-average education and skill requirements. Indeed, services account for 30 percent of total employment (triple the share in the early 2000s), half of Gross Domestic Product (GDP), and a rising share of foreign exchange earnings.²

2. **Despite the geographic challenges, the population’s youthful demographics, and the modest internal market, Rwanda has achieved impressive socio-economic progress in recent decades.** Growth in GDP per capita averaged five percent per year since the early 2000s, second only to Ethiopia in Africa. High levels of public investment (averaging 15 percent of GDP in recent years) improved access to water, sanitation, electricity, and housing. Poverty fell from 77 to 55 percent and from 59 to 38 percent from 2001 to 2017, according to international and national poverty lines, respectively. After approaching 10 percent growth in 2019, restrictions associated with COVID-19 caused GDP to contract by 3.4 percent in 2020, causing the first recession since 1994. High vaccination rates of almost 70 percent (second highest in Sub-Saharan Africa) and a resilient economy allowed growth to rebound by over 10 percent in 2021, after lifting mobility restrictions. Global conditions in 2022 caused GDP growth to slow to 6 percent, but an expansion of 7 percent is estimated for 2023-24.³

3. **Rwanda’s Vision 2050 provides the strategic foundation for high economic growth to reach upper middle-income status by 2035 and high-income status by 2050.** These ambitious goals imply growth rates exceeding 12 percent per year, requiring new avenues for growth through innovation, integration, agglomeration, and competition.⁴ With its challenging geography, small market size, and central location, Rwandan future competitiveness is intrinsically linked to its connection with its neighbors and beyond. As the East African Community (EAC) becomes increasingly integrated, trade, transport, and tourism activities are foreseen by the country’s National Strategy for Transformation 2017-2024 as leading Rwanda’s development framework. One of the Government of Rwanda’s (GoR) core development objectives is to develop multimodal transport hubs that link Rwanda and its neighbors to regional and international markets based on efficiently integrating upgraded road, rail, and air transport networks.⁵

4. **Rwanda is highly vulnerable to the impacts of natural hazards and climate change and is already experiencing the impacts of the rising occurrence of floods, droughts, soil erosion, and landslides.** In 2021, Rwanda ranked 154 out of 185 countries in the Notre Dame Vulnerability Index indicating high exposure, sensitivity, and low ability to adapt to the negative impacts of climate change.⁶ The country faces high risks from river and urban floods, landslides, and wildfires; medium risk from water scarcity, volcano eruption, and earthquakes; and low risk from extreme heat.⁷ The frequency and severity of disastrous weather events have risen since the early 2000s and caused substantial losses. In particular, the rise in heavy rainfall events, particularly in the northern and western provinces, are leading to frequent riverine flooding,

¹ National Institute of Statistics for Rwanda, Government of Rwanda, *Fifth Population and Housing Census*, 2022

² The World Bank, *Fostering Rwanda’s Competitiveness & Resilience in the Post COVID-19 era*, 2022.

³ The World Bank, *Rwanda Economic Update*, Edition 19, September 2022.

⁴ The World Bank, *Future Drivers of Growth in Rwanda*, 2019.

⁵ The World Bank, *Fostering Rwanda’s Competitiveness & Resilience in the Post COVID-19 era*, 2022.

⁶ University of Notre Dame, *Notre Dame Global Adaptation Initiative*, 2021.

⁷ ThinkHazard, consulted on 21st January 2024.



flash floods, and landslides, damaging infrastructure, harming the environment, and even causing loss of lives.⁸ In May 2023, Rwanda faced flooding and a series of landslides that cost more than 130 lives and damaged 16 national roads, 26 district roads, and 47 bridges, disconnecting districts, and impeding country supply through land transportation. The eastern and southern regions of the country have experienced frequent dry episodes, alternating with rainfall excesses.

5. **Climate change is likely to further increase the risks from extreme events.** Climate projections indicate continued regional variability in precipitation levels. Annual mean temperature is projected to increase and there is a strong likelihood of longer heatwaves with as much as 85 days per year.⁹ Climate-related shocks, such as the recent prolonged droughts, risk slowing progress in poverty reduction. About 40 percent of the population in the western, southern, and northern provinces are exposed to landslides and flooding risks, with the eastern province exposed mostly to drought hazards. The estimated annual economic costs of these climate risks will reach one percent of GDP by 2030.¹⁰

B. Sectoral and Institutional Context

6. **Road transport is the predominant form of transport in the country, accounting for over 90 percent of freight traffic and passenger travel.**¹¹ Transport costs are also high, estimated at 40 percent of the value of imports or exports, compared to 12 percent and 36 percent in Kenya and Uganda, respectively. The road network is well established, totaling nearly 38,000 km and featuring a high “classified” road density of 62 percent. Rwanda has also achieved notable success in maintaining the national paved road network. Around 60 percent of the 2,748 km of national roads is paved while 9,763 km of district roads are unpaved.¹² The unclassified road network, estimated at 22,500 km, consists predominantly of earth roads of low engineering standard with most of the roads needing improvement.

7. **Despite investments in road connectivity in the past decade, Rwanda still lacks a fully functional rural road network, providing a major constraint to the mobility of the rural population and slowing rural development.** The feeder roads policy which was approved in 2017 had the objective of making all feeder roads passable by 2027 using spot improvement and improving roads where traffic is above a set threshold.¹³ However, the vulnerability to seasonal rainfall and low engineering conditions in difficult topographic and geo-hazard conditions is posing significant financial constraints to the GoR for improving and maintaining the quality of feeder roads to a wide area of agricultural production and markets. In turn, low market access of agricultural producers and traders has led to post-harvest crop losses, high input costs, low diversification of crops, and reduced competitiveness.

8. **The Ministry of Infrastructure (MININFRA) is responsible for overall transport policy and strategic planning, the creation of a transport-enabling environment, and the setting of transport rules, regulations, and standards.** Multiple policies and frameworks have identified strategic objectives that aim to reduce transport constraints and promote growth and economic development, including: (i) the new Vision 2050; (ii) a new Transport Sector Policy; (iii) the National Feeder Roads Master Plan completed in 2023 under the Feeder Roads Development Project; (iv) a proposed update to the National Transport Master Plan, to be developed under the ongoing World Bank-financed Lake Victoria Transport Program, SOP1, (P160488); (v) the National Feeder Roads Policy and Strategy (approved in 2017 and financed under the project); and (vi) the Kigali Urban Master Plan.

⁸ The World Bank Group, Climate Change Knowledge Portal, 2021.

⁹ Netherlands Commission for Environmental Sustainability, *Climate Change Profile: Rwanda*, 2015.

¹⁰ Stockholm Environment Institute, *The Economics of Climate Change in Rwanda*, 2010.

¹¹ Rwanda has one international airport and six aerodromes spread across the country; limited water transport at Lake Kivu and does not have a local rail transportation system.

¹² Government of Rwanda, Rwanda Transport Development Agency Annual Report 2023

¹³ The NST-1 expects 3,000 km of feeder roads rehabilitated between 2017 and 2024 with half to be financed by development partners including the World Bank. The GoR has just completed the preparation of the National Feeder Roads Master Plan which will form the basis for planning and financing to meet medium and long-term targets.



9. **The Rwanda Transport Development Agency (RTDA) is an agency under MININFRA and assists with the management and administration of the transport sector, including roads, water transport, and Railway.** The RTDA also supports the planning, prioritizing, approval, delivery, management, and maintenance of infrastructure, including support to districts as the managing and implementing agencies. The Road Maintenance Fund (RMF), under MININFRA, is funded from the public budget, and is responsible for maintaining the national and district roads class I.¹⁴ District roads class I and class II and unclassified roads are under the supervision and management of the districts.

10. **Road traffic fatalities and injuries are an increasing burden on Rwanda's health system and the overall economy despite ongoing efforts on road safety.** With an estimated 29.7 deaths per 100,000 people per annum, Rwanda is classified by the World Health Organization (WHO) among countries in the red zone. Moreover, WHO estimates that only 593 of the 3,535 deaths from road traffic accidents in 2018 were reported.¹⁵ The leading causes of crashes include reckless driving, wrong maneuvers, driving over the prescribed speed limits, violation of the right of way, overtaking maneuvers, and drunk driving. The National Transport Policy and Strategy for Rwanda, approved in 2021, recommends the establishment of a lead road safety agency.¹⁶ Key challenges include a limited budget for road safety interventions and a lack of comprehensive data to support informed decision-making.

11. **Negative impacts of climate change pose a significant threat to Rwanda's development goals.** For instance, the damages and losses from the 2018 floods in Rwanda alone were estimated at US\$237 million, with the cost of recovery and reconstruction estimated at US\$336 million. According to World Bank estimates, climate risks could lead to Rwanda's GDP levels dropping 5 to 7 percent below baseline in multiple years by 2050 with negative impact on consumption, exports, and government revenues.¹⁷ Adaptation is needed to build resilience and protect against these risks.

12. **The 2022 vulnerability assessment conducted by the RTDA in collaboration with the Nordic Development Fund (NDF), highlighted the susceptibility of national and district roads in the North-West region to landslides, erosion, and floods.** The active agenda of the GoR to repair and upgrade Rwanda's road network is deeply impacted by the climate effect on the transport infrastructure. Critical road sections¹⁸ were identified among paved and unpaved roads alongside other vulnerable routes¹⁹ (Map 1). This assessment, part of the initiative "Developing Capacity for Climate Resilient Road Transport Infrastructure" funded by NDF, emphasizes the need for resilience-building measures.

13. **This catastrophe that severely disrupted essential services and transportation networks vital for livelihoods and recovery efforts requires an immediate emergency response.** Floods damaged 16 national roads, 26 district roads, and 47 bridges, disconnecting districts, and impeded supply transportation. Reconstruction costs are estimated at about US\$128 million for immediate needs and US\$186 million for medium-term reconstruction, primarily focused on roads and bridges. As an immediate response, the World Bank activated Contingent Emergency Response Components (CERCs) in two projects, LVTP and the COVID-19 Emergency Response Project (P173855). In addition, given the large reconstruction needs, the proposed project was prepared with additional funding through the Crisis Response Window (CRW) to facilitate repair and rehabilitation of damaged infrastructure with a focus on 'building back better,' i.e., with more climate-resilience.

¹⁴ National roads are roads that link Rwanda with neighboring countries, or districts, or a district and the City of Kigali, or areas of national/international significance such as airports/ports. District/ Kigali city class I roads are those linking different sectors' headquarters within the same district.

¹⁵ *Global Status Report on Road Safety 2018*, WHO.

¹⁶ MININFRA is responsible for policy and legislation related to road safety, the Rwanda Transport and Development Agency (RTDA), the Rwanda Utilities Regulatory Authority (RURA), and local governments are the implementing arms of MININFRA, and the Rwanda National Police (RNP) enforces road safety laws once enacted.

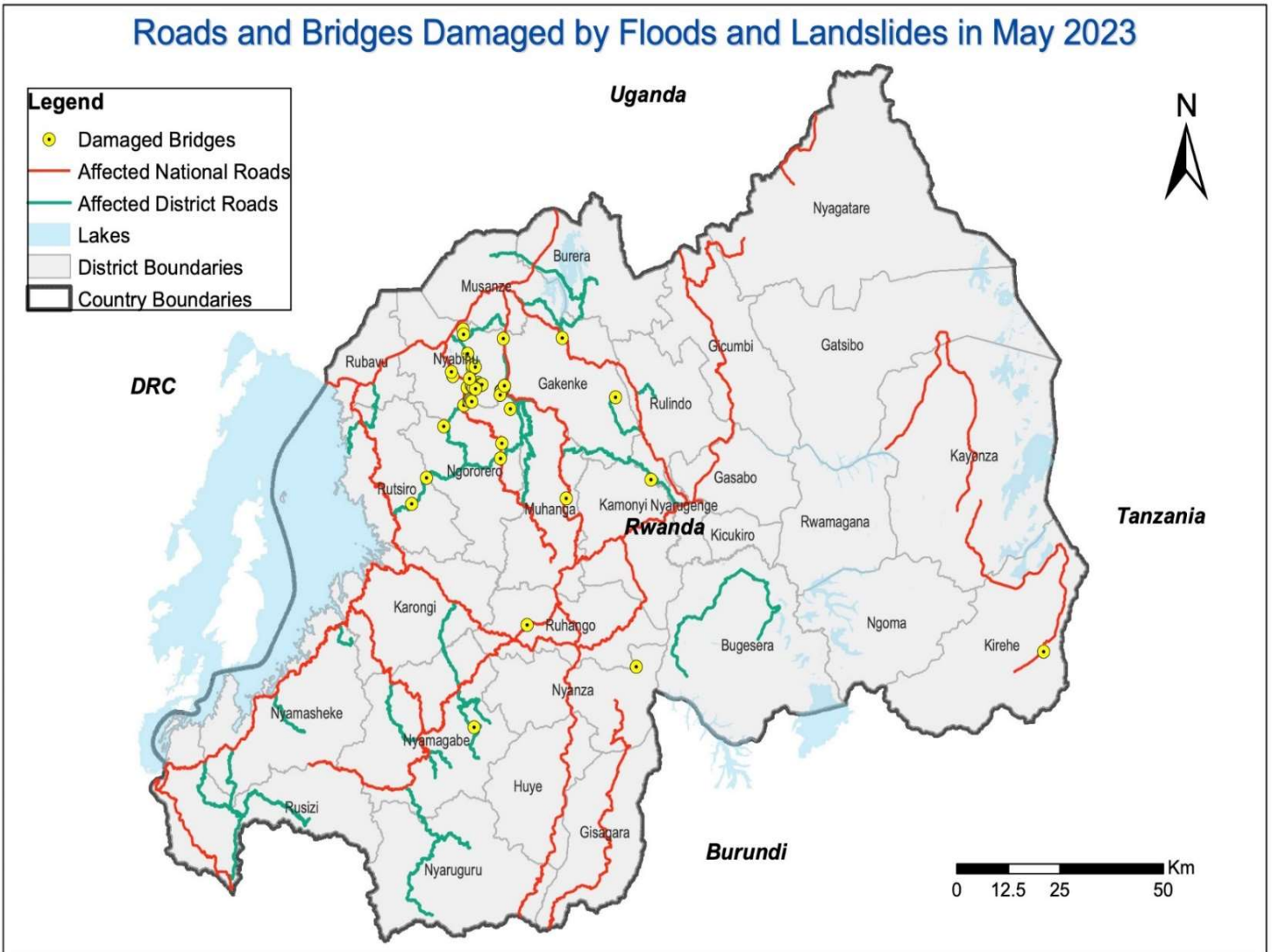
¹⁷ World Bank, 2022.

¹⁸ It includes the Muhanga-Ngororero-Kabaya-Mukamira NR16 and Rwimpiri-Mukura-Muyira (DR21),

¹⁹ Other vulnerable routes include Gihango-Murunda-Gishwati-Gatindore-Mahoko (DR23) and Rutsiro-Kavumu-Gashyushya-Kazabe (DR20).



Map 1: Spatial Distribution of Physically Confirmed Spots for Different Hazards



14. **Despite Rwanda’s remarkable achievements in gender equality, significant gender gaps persist in employment in the transport sector and in exercising voice.** As of 2022 data by ILO Statistics, women represent 3.93 percent of the transportation and storage labor force in the country.²⁰ Their low participation in the sector workforce is due to barriers related to recruitment and retention policies such as absence or gender-sensitive selection processes, limited opportunities for school-to-work transition, poor working conditions such as inflexible working hours, absence of family-friendly policies, and lack of career prospects for women.²¹ These constraints get reinforced by a lack of specific technical skills and gender stereotypes that limit their decision to get into the transport workforce.²² Although Rwanda

²⁰ ILO Statistics. Rwanda. https://rshiny.ilo.org/dataexplorer53/?region=AFRICA&lang=en&segment=indicator&id=EAP_2WAP_SEX_AGE_RT_A

²¹ The World Bank. 2020. “Stepping Up Women’s STEM Careers in Infrastructure—Summary Note: Entry Points for World Bank Project Teams” ESMAP Paper. Washington, D.C.: World Bank.

²² Ibidem.



has the highest level of female representation in Parliament²³ in the world, this level of representation is not reflected at the local level within provinces, districts, and villages, where women are still underrepresented and have less visibility and decision-making power.²⁴ Data is missing on specific gender gaps in participation and decision-making within community structures that can potentially contribute to disaster management at the local level. However, Objective 6 of the National Disaster Risk Reduction and Management Policy stresses the need to enhance communitarian structures at the local level with an emphasis on women recognizing their specific challenge to participate.²⁵ For instance, women are more constrained by their unpaid work; women spend 25.3 hours per week compared to 13.5 hours for men.²⁶ Time poverty is coupled with cultural barriers restricting their ability to attend meetings where policy adoption and implementation are discussed, and when they do attend those meetings they are given little space to express their concerns and preferences.²⁷ The Policy establishes that local communities are not well organized to respond to climate risks.²⁸ Bringing women at the center of disaster risk management can make them visible and empower for better communitarian participation which is needed for infrastructure resilience. It can also contribute to disaster risk preparedness, responses, and planning that address their specific needs as they are disproportionately affected by climate hazards. Data from sub-Saharan Africa reveals that women are responsible for 80 percent production and more than 60 of all women work in agriculture, relying more on natural resources and climate-sensitive sectors for their livelihoods.²⁹ Women have also less access to land, credit training, and other elements that would enable them to adapt better to climate change.³⁰

C. Relevance to Higher Level Objectives

15. **The project is aligned with the World Bank vision to create a world free of poverty on a livable planet.** The 2019 Systematic Country Diagnostic highlighted the importance of an improved transport infrastructure and mobility services for Rwanda’s progress toward poverty reduction and shared prosperity in a sustainable manner. The project is aligned with the Country Partnership Framework (CPF) for Rwanda (2021-2026) (Report No. 148876-RW), discussed by the Board of Directors on July 9, 2020, specifically Objective 3 related to the World Bank Group support for GoR’s efforts to develop multimodal transport, expand access to infrastructure and support the digital economy by improving connectivity domestically and regionally. This will reduce the cost of doing business and facilitate trade and thereby help address key constraints that hinder private sector development. The project will also contribute to the World Bank Group Gender Strategy (2024 – 2030), to “accelerate gender equality for a sustainable, resilient, and inclusive future” as it will ensure all-gender access to sustainable infrastructure. The project will complement current and planned World Bank-financed and donor-financed interventions in the country, particularly, LVTP, the Feeder Roads Development Project (FRDP, P126498), and the Kigali Logistics Connectivity Development Project (KLPCoconnect, P180228).³¹

16. **The project is highly relevant to the strategic objective of Rwanda’s own policies and frameworks to reduce transport constraints and promote growth and economic development.** With access to domestic and international markets representing a key policy priority for the GoR, the economic transformation pillar of the 2017-2024 National

²³ Rwanda Parliament. <https://www.parliament.gov.rw/women-representation>

²⁴ USAID, 2019. <https://banyanglobal.com/wp-content/uploads/2019/12/USAID-Rwanda-Gender-and-Social-Inclusion-Analysis-Report.pdf>

²⁵ Ministry in Charge of Emergency Management. (2023). National Disaster Risk Reduction and Management Policy. Kigali: MINEMA.

²⁶ Ibidem

²⁷ Ibidem

²⁸ Ibidem

²⁹ African women bear the brunt of climate change: <https://issafrica.org/pscreport/psc-insights/african-women-bear-the-brunt-of-climate-change#:~:text=They%20carry%20a%20disproportionate%20unpaid,them%20vulnerable%20to%20climate%20changes>

³⁰ Women In the Shadow of Climate Change: <https://www.un.org/en/chronicle/article/womenin-shadow-climate-change>

³¹ LVTP is paving the road section of Kibugabuga-Shinga-Gasoro (66.55 km, part of the central corridor) that is connecting to the KLP roads in the Bugesera district. FRDP is contributing by rehabilitating feeder roads that are connected to main roads and serving as channels for access to markets and transfer of agricultural products. As for KLPCoconnect, the project is upgrading about 69.45 km from Masaka to the Bugesera area to connect with the Kibugabuga-Shinga-Gasoro, road and consequently, the central corridor.



Strategy for Transformation-1 includes a strategic plan for the transport sector, underscoring the pivotal role of infrastructure development. The Transport Sector Strategic Plan seeks an expanded and modernized transport infrastructure with four priority objectives: (i) improved riding quality and level of service across the road network; (ii) improved public transport services to reduce urban traffic congestion; (iii) promotion of an integrated multimodal transport system; and (iv) support for an efficient and sustainable air transport system.

17. **The project is consistent with the Rwanda’s Nationally Determined Contribution (NDC),³² its Revised Green Growth and Climate Resilience Strategy (GGCRS),³³ and its Country Climate and Development Report (CCDR).³⁴** Rwanda’s NDC identified adaptation interventions by sector, including the deployment of improved transport infrastructure and services, with the reduction of length of roads vulnerable to flood and landslides and the installation of solar lighting and light-emitting diode (LED) systems for street lighting and public spaces along main roads; the development of climate resilient post-harvest and value addition facilities; and the promotion of afforestation /reforestation activities. The revised GGCRS sets out the country’s vision for 2050 and defines a program of action for low carbon, climate resilient energy and transport networks, which includes the deployment of resource-efficient infrastructure to drive green trade growth, powered by low-carbon and climate-resilient energy and transport systems. Rwanda’s CCDR identified the following as key priority areas; investing in affordable post-harvest and storage solutions, reforestation, and terracing on slopes to prevent soil erosion. The project will contribute to adaptation and mitigation objectives by integrating climate information in transport and market infrastructure planning, adopting climate-informed design and construction standards for the rehabilitation, and upgrading of markets, roads, bridges, and ancillary infrastructure, and providing regular maintenance of infrastructures. The project also promotes planting trees to combat land degradation, erosion, and landslides.

II. PROJECT DESCRIPTION

18. **The project will restore connectivity in districts hit by floods and landslides to re-establish the disrupted economic activities.** The key intervention under the project is to rehabilitate or repair the damaged road sections and bridges in a climate-resilient manner. This will ensure that connectivity of and within the affected districts with the rest of the country and the region is restored to allow for cost-effective transportation of goods, people, and services. Rehabilitating the damaged transport infrastructures in a resilient and safe manner will be key to building back the road network on a sustainable basis. The project will complement other ongoing World Bank-funded Road and connectivity projects, as well as other donor-funded transport projects, all of them promoting climate-friendly activities (see paragraphs 54-56).

A. Project Development Objective

PDO Statement

19. The Project Development Objective is to restore the connectivity in areas of Rwanda affected by floods and landslides in a climate-resilient manner.

PDO Level Indicators

20. The following indicators are selected to measure progress toward achieving the PDO:

- a. Number of people that benefit from improved access to sustainable transport infrastructure and services (disaggregated by gender);
- b. Restored access to sectors³⁵ (number of sectors accessible due to roads and bridges rehabilitated);
- c. Restored access to socio-economic infrastructure (number of schools, health centers, and markets accessible due to roads and bridges rehabilitated);

³² Republic of Rwanda, *Updated Nationally Determined Contribution*, May 2020.

³³ Republic of Rwanda, *Revised Green Growth and Climate Resilience Strategy* 2023.

³⁴ World Bank Group, *Country Climate Development Report: Rwanda*, September 2022.

³⁵ Sector in this context is a cluster of villages that administratively belong to the same authority call sector.



- d. Number of critical embankments, bridges, and culverts reinforced in the affected districts/sectors with climate resilient measures for adaptation and mitigation.

B. Project Components

21. **Component 1: Rehabilitation/repair of damaged transport infrastructure in a resilient and safe manner to connect districts affected by floods** (*US\$.89.68 million, comprising US\$76 million IDA funding and US\$13.68 million GoR funding*). The component will finance three sub-components (Table 1) related to national roads, district roads, and bridges, covering the design, supervision, and monitoring of works and the rehabilitation works of the damaged infrastructures. Measures such as slope stabilization and afforestation will be implemented to mitigate future landslide risks and fortify community resilience.

22. **Sub-component 1.1: Rehabilitation of national roads** (*US\$51.33 million, comprising US\$43.50 million IDA and US\$7.83 million GoR funding*). The subcomponent will finance: (i) consulting services for technical studies, supervision, and monitoring of works; and (ii) rehabilitation or repair of spots located on about 254 km of national roads in a climate-resilient manner.

23. **Sub-component 1.2: Rehabilitation of district roads** (*US\$26.25 million, comprising of US\$22.25 million IDA and US\$4 million GoR funding*). The subcomponent will finance: (i) consulting services for technical studies, supervision, and monitoring of works, and (ii) rehabilitation or repair of spots located on about 130 km of the district roads and bridges in a climate-resilient manner.

24. **Sub-component 1.3: Rehabilitation of bridges** (*US\$12.10 million, comprising of US\$10.25 million IDA and US\$1.85 million GoR funding*). The subcomponent will finance: (i) consulting services for technical studies, supervision, and monitoring of works; and (ii) rehabilitation or repair of about 15 bridges in a climate-resilient manner.

25. **Component 2: Environment and social risk management, community engagement, and awareness campaigns** (*IDA, US\$2.90 million*). The component will finance the following activities:

- **Land acquisition and cash compensation costs for project-affected persons (PAPs)** (*US\$1.70 million*). IDA funds will be used to finance land acquisition for impacted persons along the road sections and bridges, and costs related to RAP implementation including compensation fees for PAPs.
- **Risk mitigation, community and stakeholder engagement** in planning and execution including grievance redress, awareness workshops, and training on disaster risk management and mitigation (*US\$0.40 million*). The activity will allow engagement with local communities living along the damaged infrastructures and discuss grievance redress through awareness workshops.
- **Enhancing the capacity of climate resilience committees led by women** (*US\$0.40 million*). These committees will give their view on the prioritization of interventions that will be financed by the project considering climate impact on gender regarding the use of transport services and infrastructures. They will be trained on how to report any disaster occurrence using the already established channels. The project will collaborate with the Ministry in Charge of Emergency Management (MINEMA) which has established a framework involving the participation of residents in reporting on disasters and climate change starting from the community level up to the national level. RTDA plans to engage with MINEMA to assess the existence of communitarian committees and implement any necessary interventions thereafter to increase women's leadership position within them.
- **Road safety measures** (*US\$0.40 million*). The project will focus on creating safer infrastructure through design and conducting road safety audits at various stages, including during design, construction, and before opening to traffic. Facilities for vulnerable road users and speed management will be implemented in the project areas. Safety during construction will be addressed through road safety audit (RSA) recommendations. By partnering



with enforcement agencies, the project will ensure the enforcement of safer speed limits. Additionally, the project will promote safer road use (based on the upgraded infrastructure) through campaigns targeting school students, including speed management and helmet use for local road users, such as motorbike and truck drivers.

26. **Component 3: Implementation support, monitoring, capacity building (IDA, US\$1.10million).**

- **Project management and incremental operating costs (US\$0.30 million).** This will cover the salaries of competitively recruited experts fully dedicated to the project, as well as travel expenses and other incremental operating costs.
- **Technical assistance and institutional support (US\$0.60 million).** This activity will support the capacity building of the staff of RTDA, MININFRA, and MINEMA involved in the project implementation, to enhance and broaden their skills in climate change mitigation and adaptation and gender. It will finance engagement sessions with women in the project area to identify and address barriers that women face to participate in road works in low, medium, and high-level skills and provide recommendations to enhance their participation.
- **Monitoring and evaluation (US\$0.20 million).** This activity will enable reporting of the project implementation progress and its impacts.

27. **Component 4: Contingent Emergency Response (US\$0 million).** This zero-dollar component can be activated to provide support for an immediate response to an eligible crisis or emergency as needed. A CERC Manual and an Emergency Action Plan will have to be prepared separately and approved by the World Bank, which will constitute a disbursement condition for the CERC. If this component is activated, the project will be restructured to reallocate funds, and to revise the PDO, indicators, and implementation arrangements as needed.

28. **Partnership and collaboration.** RTDA has an ongoing long-term Technical Assistance (TA) on climate-resilient road transport infrastructure supported by NDF. Under this TA, RTDA has completed a countrywide vulnerability mapping, development of build-back better guidelines for structures, and technical specifications for pontoon bridges. Review of roads and bridges design standards is ongoing followed by implementation of small-scale pilot projects along the selected road corridors. The project will benefit from both engineering and environmental solutions identified under the NDF-financed TA and will scale up the impact.

**Table 1: Summary of Project Components and Estimated Costs and Financing (US\$ million)**

Component and activities	Total	IDA	Counter part
Component 1: Rehabilitation or reconstruction of damaged transport infrastructure in a resilient and safe manner	89.68	76.00	13.68
Sub-component 1.1: Rehabilitation or reconstruction of damaged national roads	51.33	43.50	7.83
Consultant services for technical studies, supervision, and monitoring of works	3.00	2.54	0.46
Rehabilitation of national roads (254km) in a climate-resilient manner	48.33	40.96	7.37
Sub-component 1.2: Rehabilitation or reconstruction of damaged district roads	26.25	22.25	4.00
Consultant services for technical studies, supervision, and monitoring of works	1.50	1.27	0.23
Rehabilitation of district roads (130km) in a climate-resilient manner	24.75	20.98	3.77
Sub-component 1.3: Rehabilitation of damaged 15 bridges in a climate-resilient manner	12.10	10.25	1.85
Consultant services for technical studies, supervision, and monitoring of works	0.50	0.42	0.08
Rehabilitation of 15 bridges in a climate-resilient manner	11.60	9.83	1.77
Component 2: Environment and social risk management, community engagement, and awareness campaigns	2.90	2.90	0.00
Land acquisition and cash compensation cost for project-affected persons along the road sections and bridges-RAP implementation (compensation fees for project-affected persons)	1.70	1.70	0.00
Risk mitigation, community and stakeholder engagement in planning and execution including grievance redress, awareness workshops, training on disaster risk management and mitigation	0.40	0.40	0.00
Climate resilience committees led by women	0.40	0.40	0.00
Road safety-focused campaigns, training, and personal protection equipment to reduce fatalities along the roads to be repaired and rehabilitated	0.40	0.40	0.00
Component 3: Implementation support, monitoring, capacity building	1.10	1.10	0.00
Project management costs-selected implementation costs, consultant fees	0.30	0.30	0.00
Technical assistance in climate change mitigation and adaptation and training for excavators and wheel loaders for 4 months.	0.60	0.60	0.00
Monitoring and evaluation for reporting of the project implementation progress and its impacts	0.20	0.20	0.00
Component 4: Contingent Emergency Response (CERC)	0.00	0.00	0.00
Total	93.68	80.00	13.68

C. Project Beneficiaries

29. **The project covers 6 districts in four provinces across the country with various levels of impact caused by the floods.** The beneficiaries mainly include the local community's road users along the damaged infrastructures and in the project areas, farmers, and owners of various agriculture schemes. The project is expected to create temporary job opportunities during the construction period, and later during maintenance works. Rehabilitating the roads will restore the connectivity of the concerned regions and districts and will allow the movement of goods and passengers to resume safely between Kigali and these areas, and between the different districts, thus creating economic opportunities. Rehabilitating the national and district roads will also improve access to markets and socio-economic services and link these districts with Kigali. About 2.3 million beneficiaries (about 70 percent) including youth and women will benefit from the rehabilitation of these roads and bridges. Other project beneficiaries will include the public institutions and their staff involved in road construction such as MININFRA and RTDA, and the private sector executing contracts during the project

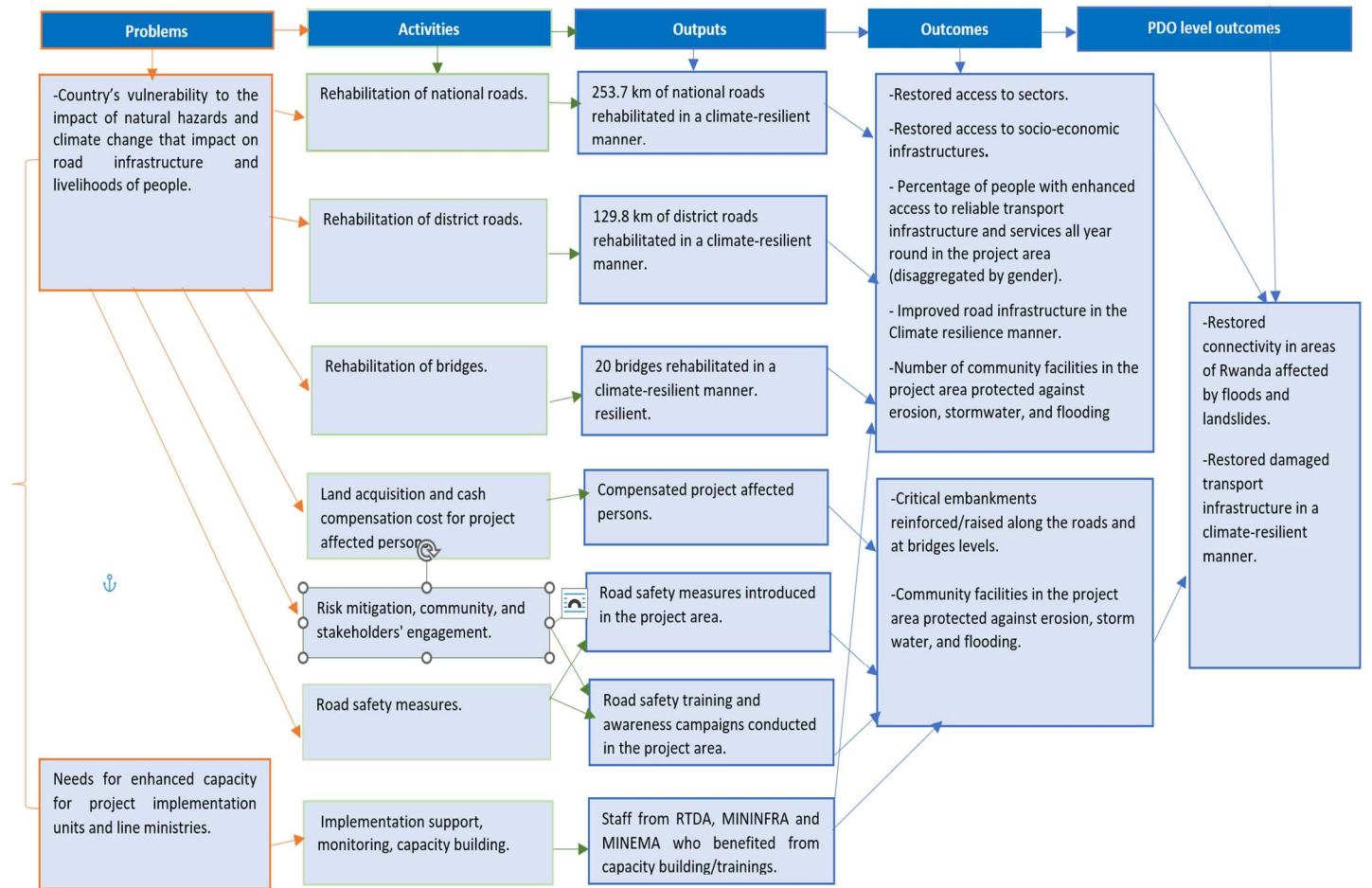


implementation. The project is expected to contribute to increasing the percentage of all-weather roads in the affected areas to allow business growth.

D. Results Chain

30. A Theory of Change is presented below (Figure 1). The key outcomes for this project include: (i) Improved connectivity among the districts through rehabilitated national and district roads and bridges; (ii) reduced travel time along selected rehabilitated roads; (iii) enhanced climate resilience of the damaged roads infrastructure; and (iv) improved livelihood conditions of people who benefitted from the connected basic socio-economic infrastructures along the roads.

Figure 1: Theory of Change



E. Rationale for Bank Involvement and Role of Partners

31. The project is responding to an emergency from heavy flooding in four provinces across Rwanda and will complement ongoing World Bank-funded projects and other donor-funded interventions in the country. The project will contribute to the objectives of other ongoing transport initiatives geared toward seamless movement of people and goods across the country through the construction of climate-proof infrastructure. Other partners actively involved in supporting the climate resilience agenda in Rwanda are the NDF, JICA, and the African Development Bank. Under the coordination of the Government of Rwanda, IDA regularly consults with other donors to ensure interventions are complementary.

32. The project is focused on rehabilitation and repairs that need to be undertaken with public funds. The roads that were damaged due to high rainfall and floods are either national or district roads owned and managed by government



entities using public funds. The nature of the works are spot repairs of damages and would not qualify for private sector financing or public-private participation (PPP) because the works are relatively small and spread over a wide area, with low revenue generation potential.

F. Lessons Learned and Reflected in the Project Design

33. **The project builds on past and ongoing World Bank support to Rwanda to improve its road network and adaptation and resilience to climate change impacts.** It also builds on the lessons drawn from similar projects implemented in other countries:

- **Inclusion of resettlement costs under IDA funding to avoid implementation delays.** The lack of adequate counterpart funding to cover resettlement costs has caused delays in the implementation of the two ongoing World Bank-funded Road projects. The recipient has faced persistent challenges in mobilizing counterpart funding due to the GoR's constrained fiscal resources considering the current financial demands and external factors affecting Rwanda (the COVID-19 pandemic, floodings and landslides, pan-African food insecurity). For both KLPCConnect and this project, IDA will allocate funds to cover compensation payments to PAPs and other related costs for the implementation of the Resettlement Action Plans (RAP) to avoid delays in making land available for roadworks.
- **Climate change is a cross-cutting issue that requires collaboration and innovative approaches.** In addition to repairing the damage, appropriate measures are required at different levels to address climate change impacts. This ranges from project design, regulations, management, and access to information to capacity building (human resources, technical, and financial capacity) within a range of key government roles and institutions. MINEMA's participation in the project will ensure that climate change is addressed holistically, with related activities for capacity building, improved design standards, and mainstreaming in construction and maintenance.
- **Strengthening the project beneficiaries' implementation capacity is essential to ensure sustainability.** Even though RTDA has long-standing experience in managing the World Bank-financed and other donor-financed projects, adaptation and mitigation of climate change effects are underdeveloped. Project implementation arrangements should provide an opportunity to build and strengthen in-house institutional capacity and the project's institutional strengthening component will cater to that.
- **The emergency context and potential worsening of the situation in the affected areas during the next rainy season will require adjustment of estimated costs.** The nature of the emergency has not allowed precise estimation of the project costs and they might be underestimated due to a risk of deeper impact on the roads and bridges' geotechnical structure. To mitigate the risk of cost overruns, civil works cost estimates will be based on detailed engineering design and will include adequate contingencies. Existing contractors on the same roads for periodic maintenance will be used for the works, reducing substantially the mobilization cost on the contracts.
- **Specific attention is needed to ensure the inclusion of women as beneficiaries and to mitigate gender-based violence (GBV) risks.** The country's experience in women employed as workers has been successful in providing a source of income for women and thereby also improving their livelihoods. The project will seek to promote women's employment in the road sector and capacity building for long-term jobs. The project is designed to mitigate and respond to cases related to Sexual Exploitation and Abuse (SEA) based on local context and lessons learned from international experience.



III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

34. **The project's institutional arrangements consist of RTDA as the implementing agency under MININFRA.** The Ministry of Finance and Economic Planning (MINECOFIN) is the representative of the Government on the issues related to the Financing Agreement and will offer guidance and leadership on the utilization of the project's counterpart funds. Other entities involved are the Road Maintenance Fund (RMF), the Rwanda Environment Management Authority (REMA), the Rwanda Water Resources Board (RWB), the Gender Monitoring Office, and the district authorities. The MINEMA will participate in the project implementation given their national mandate to lead disaster management-related interventions. The institutional role of each stakeholder is described in *Annex 1: Implementation Arrangements and Support Plan*. MININFRA and MINEMA will co-chair the project steering committee and provide strategic guidance for implementation.

35. **Implementation arrangements.** RTDA, through the Single Project Implementation Unit (SPIU), is the implementing agency of the project. Thus, one special account will be provided. The SPIU will handle technical matters, procurement, financial, and environmental and social issues for all the activities. For successful implementation of the project, it was agreed to designate a team inside RTDA SPIU for the project preparation and implementation. The project implementation team would be kept in place during the project implementation to ensure consistency, continuity, and efficiency in the project management.

Proposed project design principles and approach for executing the road works.

36. **The project will be implemented in four years using the spot improvement approach on the damaged roads (national and district) sections.** The roads and bridges to be rehabilitated and repaired are selected among those damaged by the floods of May 2023. The selection criteria will be done by RTDA experts in consultation with MININFRA, with prioritization considering the severity of the damages and the economic impact. As RTDA already has contractors operating on the national roads for their maintenance, the works will be undertaken by these same contractors based on a technical specification of the works to be executed. For roads where there is no contractor in place, RTDA will use a fast-track procurement process to select contractors on an emergency basis. These methods are explained in detail in the Project Procurement Strategy for Development (PPSD).

37. **Spot improvement involves targeted enhancements or repairs of specific damaged areas along a specific road section.** The focus is on addressing localized issues such as embankments and slope failures, roads and bridges damaged by floods requiring raising, rehabilitating, reconstructing, repairing, or improvement of drainage systems, and critical potholes or surface irregularities that compromise road safety and functionality. Key activities will include backfills, retaining walls in stone masonry and gabions, re-graveling, construction, or repair of layers of the road, masonry drainage, signposts, crash barriers, planting trees and grass, pipe culverts, rockfill, landslide removal, and back slope trimming, among others. This approach allows for an efficient allocation of resources by targeting priority areas with the greatest need for improvement while minimizing disruption to traffic flow and reducing costs associated with full road rehabilitation. Spot improvement serves as a strategic maintenance strategy to address immediate concerns and extend the lifespan of road infrastructure until more extensive rehabilitation works can be undertaken in the future. These interventions will be organized in two cohorts:

- **The first cohort is composed of spot improvement on about 254 km of national roads and damaged bridges which will be rehabilitated using existing contractors.** This cohort concerns damaged sections on national paved roads under component 1 and bridges. The implementation will be managed by existing contractors competitively recruited by RTDA for periodic maintenance. Recruitment of other contractors for the same roads would create collaboration issues among the contractors as the boundary of their tasks would be difficult to define. Those existing/ongoing contracts are subject to unit prices, as they are being executed based



on service orders issued by RTDA resulting from a joint site visit between RTDA, the contractor, and the supervision consultant to identify spots to be maintained. During the preparation of technical specifications and preparation of tender documents, RTDA has ensured that all possible activities (items) that can occur for road maintenance are covered in the bill of quantities. This cohort concerns the most urgent and critically damaged roads and bridges and is in districts most affected by flooding and for which there are existing contractors in place.

- **The second cohort is composed of spot improvement of damaged sections located on national unpaved roads, and district roads, and repair or rehabilitation of bridges using the category A1 & A2 contractors as established by the Rwanda Public Procurement Authority (RPPA).** These sections are currently not covered by any type of contract for work or consultancy services. Given the emergency, it is proposed to use limited competitive bidding to respond expeditiously.

38. **The project will use adaptive and accelerated procurement processes to expedite the procurement processes and respond to the emergency nature of the project.** This includes using a set of pre-identified civil works contractors who have a proven track record of rehabilitating transport infrastructure and with valid contracts in the works areas. The RTDA will use the list by inviting sets of firms to bid on contract lots grouped by districts and type of infrastructure (national unpaved roads, district roads, and bridges). Firms will be evaluated on their financial and technical capacity.

39. **Supervision of works.** Given the emergency, RTDA will maintain existing supervision consultants on national paved roads and use a limited competitive bidding process where these consultants are not in place (cohort 2). In the second case, a direct Request for Proposals (RFP) will be issued to the consulting firms as per the categorization of consultancy services related to roads and bridges as established by RPPA.

B. Results Monitoring and Evaluation Arrangements

40. **Achievement of project objectives, as measured by the corresponding key performance indicators, will be monitored, and reported upon regularly.** The monitoring and evaluation (M&E) system will capture information to assess project results against the targets set as part of the Results Framework. The baseline information has been drawn from the preliminary study undertaken after the floodings and will be followed up with beneficiary surveys and other assessments at the midterm review (MTR) and closing to evaluate qualitative and quantitative aspects of project results. Progress of the key performance indicators will be measured through the implementation support missions and some specific surveys. Specific details for project management and reporting will be laid out in the Project Implementation Manual (PIM) which will serve as the overall guiding document for the SPIUs. The PIM will be prepared and adopted by the recipient by effectiveness. The recipient will carry out an MTR two years into implementation. The target indicators will be provided before the start of the activity impacting them.

C. Sustainability

41. **The project investment sustainability will be ensured through the Road Maintenance Fund (RMF) which will take over the maintenance of the repaired and rehabilitated roads after the end of works and closing date.** The road rehabilitation or reconstruction, and the subsequent routine maintenance will be contracted out in two stages: the first stage is to repair, under emergency procedures, the roads and bridges damaged by floods, while the second stage is to appoint contractors for the maintenance of the rehabilitated infrastructure. In Rwanda, the existing RMF is ensuring the sustainability of the road sector investments and benefits through long-term maintenance and enforcement of axle load control to preserve the road and bridge assets.

42. **Rationale for Triggering Emergency Procedures under Paragraph 12, Section III of IPF Bank Policy, and Processing the Project using condensed procedures.** Heavy rains happened on May 2 and 3, 2023, and repetitive floodings and landslides have caused severe damages and have had a debilitating effect on Rwanda's road system in the northern, western, and southern parts, affecting the road connectivity of 26 districts and about 9 million people. Such infrastructure



plays a critical role in providing the connectivity with regional roads required for the supply of goods and services in the country, and connections to health centers, schools, and any socio-economic opportunities that are of vital importance for the poor and most vulnerable populations in isolated areas of the country, and zones affected by the floods. Large communities have been struggling to connect after the damage and the next coming rainy season may worsen the situation. To restore the connectivity between the capital city with the districts, the borrower requested in August 2023 support from the World Bank to restore the connectivity in the affected zones. A CRW has been activated and the approval of the World Bank management for an amount of US\$80 million was obtained on February 1, 2024. The project has been prepared in parallel to the request to fast-track its preparation. The project activities, especially the rehabilitation of national and district roads and bridges, if not done urgently, will break access and continuity of the integrated movement of people and goods in the affected area (agriculture and livestock products, trade activities, basic services accessibility) with the resulting negative economic and social implications. Furthermore, the damages could be worsened if no action is taken to rehabilitate before the forthcoming heavy rainy season in Rwanda (expected in May 2024).

43. To respond to the GoR's request in a situation of emergency, the project is prepared using condensed IPF procedures for its preparation and implementation to respond to damages caused by the flooding. The condensed procedures will allow the use of alternative approaches for procurement, disbursement, and meeting environmental and social requirements that usually take longer to prepare. The IPF condensed procedures allow the World Bank team to fast-track the preparation to make funds available for damages repairs and to mitigate the risks before the next heavy rains. A normal preparation timeline would not allow the World Bank to provide its support on time.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic, and Financial Analysis

44. **The national roads to be rehabilitated are mostly paved roads (7-meter carriageway), while the district roads are earth roads (7-meter carriageway for district roads class 1 and 6-meter carriageway for district roads class 2).** A detailed assessment of the spots created due to heavy rains will be undertaken to assess their severity and location. This will be followed by a prioritization of emergency works for the identified spots based on criteria such as the severity of the damages, disturbance of the traffic, and the required resources for repairs. Additionally, the work's design will include the stabilization of slopes to prevent them from collapsing, with embankments of critical areas. The project scope will be derived from the long list of damaged roads and bridges following the recent flooding: 16 national roads, 26 district roads, and 47 bridges.

Economic Analysis

45. **The project is expected to generate economic, social, and environmental benefits.** The principal benefits will go to road users and the country's commercial sector by facilitating the transfer of goods for the private sector and deepening regional integration, all being key success factors to the achievement of GoR's Vision 2050 development objectives. The benefits will include: (i) decreased travel times along the road corridors; (ii) reduced vehicle operating costs (VOCs); and (iii) reduced vulnerability of the roads and bridges to climate effects (flooding, landslides, etc.). The project is also expected to provide significant economic and social benefits from the improved access to socio-economic infrastructure in the project area, ensuring that the gains from the project are distributed across income groups (including youth and women). Expected environmental benefits include improving the road sections with climate-resilient infrastructure and reducing net CO₂ emissions per vehicle with better vehicle conditions and smoother traffic flows. Trading activities and commercial businesses are expected to prosper for the benefit of roadside communities.



Climate Mitigation and Adaptation Activities

Paris Agreement

46. **The project is aligned with the goals of the Paris Agreement on both adaptation and mitigation.** The project is consistent with the country's NDC, revised GGCRS, and CCDR, as documented in the section on Relevance to Higher Level Objectives. The full description of climate risks is provided in the section on Country Context.

47. **Assessment and reduction of adaptation risks.** The project adequately reduces the physical climate risks to the project outcomes. The project's climate resilience and adaptation design considerations limit the vulnerability of the infrastructure to a low level of residual risk. The project invests in the design, rehabilitation, and repairs of roads and bridges to climate-resilient standards.³⁶ Examples of climate resilience measures include the deployment of appropriate drainage infrastructure and erosion and landslide prevention measures such as the protection of road embankments, specialized pavement surface materials, and tree planting along the sections. Component 2 of the project is providing capacity building in climate resilience aspects of transport infrastructure. The project is therefore assessed to be low risk and aligned from an adaptation perspective to the Paris Agreement. On adaptation, the project adequately reduces the physical climate risks to the project outcomes, and the project's climate resilience and adaptation design considerations limit the exposure to a low level of residual risk.

48. **Assessment and reduction of mitigation risks.** The project is mainly mitigating the climate change impact of transport infrastructures and is by itself having a positive impact on the country's low-GHG-emissions development pathways. The activities financed by the project are either universally aligned or present low mitigation risk. The project invests in the design, rehabilitation, and repairs of roads and bridges damaged following floods. Works are implemented without capacity expansion and there is no risk of contributing to deforestation. Rwanda has a very low motorization rate with 14 vehicles per 1,000 inhabitants.³⁷ The project through its component 2 will finance climate change training for RTDA and MININFRA staff for the sake of this project and further management of climate resilience for transport infrastructure in Rwanda. The project infrastructures, when rehabilitated, will have positive implications for safe and resilient connectivity. The project is therefore assessed to be aligned from a mitigation perspective. Annex 3 provides an overview of activities to strengthen the climate resilience of the road sections and bridges.

Climate and Disaster Risk Screening

49. **The project locations are exposed to rising flood and drought risks, with expected high impacts on road infrastructure, water availability, and food security.** The project locations have experienced climate and geophysical hazards in the recent past and are expected to experience these in the future with high intensity, frequency, or duration. Floods increase soil erosion and silting of drainage infrastructure leading to water submerging roads. There has been an uptick in heavy rainfall occurrences, particularly in the northern and western provinces, leading to frequent flooding, flash floods, landslides, and mudslides, causing damage to infrastructure and loss of life (see Picture 1, damaged infrastructures due to flooding). Accordingly, the exposure is rated as high since past events and projections indicate an increase in mean and extreme precipitation variability with a high risk of flooding in future decades. With the current assessment of exposure risk to natural climate risk and natural hazards, the potential impacts on the project's physical infrastructure and assets are expected to be substantial. This requires the deployment of resilience and adaptation measures, including integration of climate information, such as: (i) vulnerable area mapping, in the planning and design of activities; (ii) adopting climate-informed design and the provision of regular maintenance; and (iii) the planting of trees to combat land

³⁶ Climate resilient design and construction standards ensure that road infrastructure, bridges and drainage infrastructure can cope with current and future climate conditions.

³⁷ Ayetor G.K, Mbonigaba I., Ampofo J., Sunni, *Investigating the state of road vehicle emissions in Africa: A case study of Ghana and Rwanda*. The Transportation Research Interdisciplinary Perspectives; Elsevier. September 2021.



degradation, erosion, and the occurrence of landslides. The combination of physical mitigation and adaptation measures with the project's enabling components and development context will lead to a moderate risk of outcome/service delivery.

50. **Climate Co-Benefits:** The project is expected to improve the climate resilience of road infrastructure. Special attention will be paid to the design of embankments in flood-prone areas, to ensure their height is adequate to resist increasing levels of flooding in the project areas without causing drastic washouts. The project costs and benefits in terms of the change in greenhouse gas (GHG) emissions, especially CO₂ can be assessed using the new carbon price recommended by the World Bank for the economic analysis of projects. It is expected that on a vehicle-km basis, there will be a reduction in carbon emissions due to smoother traffic flows and less idling due to stop-go operations. Rwanda prepared its Country Climate and Development Report (CCDR) and disclosed it in September 2022. The CCDR enables mainstreaming of the climate agenda in the country engagement process thus contributing to the implementation of the Climate Action Plan.³⁸

51. **Climate mitigation:** GHG emissions will be reduced because of better road conditions. An analysis for LVTP SOP1 has shown that up to 40 percent of GHG emissions could be avoided when improving road conditions and traffic flows.

52. **Climate adaptation of the roads and bridges infrastructure:** The project will finance the rehabilitation and repair of roads and bridges at national and district levels in the targeted regions using climate-resilient standards.³⁹ Roads and bridges will be rehabilitated to resist landslides, flooding, and erosion through measures such as stabilization of slopes and embankments, grass and tree plantation, and improved drainage systems.

53. **Road rehabilitation and bridge repairs will be designed applying mitigation and adaptation measures to make them resilient to climate change and reduce their vulnerability to further floods.** The works consist of rehabilitation and repairs according to the severity of the damages to make infrastructure more resilient to water crossing and its damages. The design of the repairs and rehabilitation works will consider the climatic impacts in each province and the safety parameters for road users. Repairs will include: (i) strengthening the base and/or sub-base of sections with more resilient material compacted; (ii) constructing drainage canals along sections to channel away the quantity of water that damaged the roads; (iii) upgrading bridges to support the quantity of water flow in the rivers; and (iv) sealing the surface (for paved roads) to protect sections against infiltration that can lead to a wash up of the base. Techniques will be adapted for paved and unpaved roads. Additionally, roads side slopes, embankments, culverts, and bridges will be protected and reinforced. The existing RTDA guidelines will be used but also enhanced where required to improve the climate resilience design of infrastructures. The entire investment for works (US\$89.68 million of which IDA is providing US\$76 million) is contributing to the climate resilience of the infrastructure (roads and bridges). About 15 climate-resilient bridges and many drainage channels will be constructed along the damaged roads and in replacement of deteriorated bridges using the spot improvement approach.

54. **Rehabilitation and repair of roads and bridges to enhance resilience to increased water flow from heavy rains and floods throughout their life cycle.** RTDA will collect data on the damaged structures in terms of hydraulic, topographical locations, water flow rates, and mechanical resistance. Infrastructures that are in critical condition will be prioritized. Given the significant damages to 16 national roads totaling US\$64.28 million, 26 district roads totaling US\$49.95 million, and 47 bridges totaling US\$12.90 million, resulting in a total rehabilitation cost of US\$127.13 million due to recent floods, the available funds (US\$93.68 million) are insufficient. Therefore, prioritizing critical roads and bridges is the most practical approach for rehabilitation efforts. The preliminary study shows that there are many sections damaged and bridges destroyed that have geotechnical and hydraulic limitations to resist flooding and to carry the exceptional water flow due to climate change. A selected number of damaged road sections and bridges will be repaired

³⁸ The Climate Action Plan starts from the premise that climate and development need to be integrated, both to facilitate successful mitigation and adaptation, and to ensure economic development is sustainable.

³⁹ Climate resilient design and construction standards ensure that road infrastructure, bridges and drainage infrastructure can cope with current and future climate conditions.



and rehabilitated to improve their resilience to climate. The amount allocated to the bridges is US\$10 million. The rehabilitation will include the construction of ditches to collect water from the road and convey it to outlet points. Channels will be constructed to drain water from the sub-base layer of the road and avoid the runoff of the soil if it is wet of rainwater. The list of roads and bridges per district is provided in Annex 2.

Picture 1: Damaged Infrastructures due to Flooding in May 2023



55. RTDA has an existing road and bridge design manual that will be revised to incorporate climate resilience aspects along with new guidelines on construction materials and build back better and best practices for right-of-way erosion control. The manual revision will cover:

- Build back better guidelines for bridges/structures.
- Emergency responses to bridge, slope, and flooding disasters
- Specifications for floating pontoon bridges
- Best practices for right-of-way erosion control measures guideline
- Guidelines for sealing technologies
- Guidelines on road materials recycling and stabilization
- Gravel road inspection manual
- Gravel roads maintenance manual.



56. RTDA will also develop climate and disaster risk management plans of action for resilience interventions, early warning, emergency response, and community awareness strategy. These are being developed under the study of Geohazard Risk Management and Climate Resilient Feeder Roads in Rwanda financed by the World Bank.

Road Safety

57. The project adheres to the promotion of road safety measures during project Implementation, as do all other ongoing World Bank-financed Road projects in Rwanda. It is planned that during the rehabilitation works, the project will conduct: (a) traffic safety sensitization campaigns for schools, health centers, and markets along the project roads; and (b) community engagement sessions for road safety at district and sector levels to ensure the local communities are aware of road safety measures. At the institutional level, RTDA and MININFRA will continue benefiting from road safety activities from LVTP, FRDP, and the KLPCConnect project. The project for instance adheres to the plan of setting up a road safety strategy with KLPCConnect support to MININFRA.

Gender

58. **The project will address some of the gender gaps identified in access to employment opportunities in the sector and in exercising voice and agency.** Under Component 1, the project will complement the activities in the KLPCConnect to address gender gaps related to women’s engagement in road construction technical jobs and in medium-level skilled jobs. For this purpose, through Component 3, the gender specialist at RTDA designated for the project will lead an analysis of the barriers to inform the development of a Gender Action Plan with activities to support training for women in road works, including implementation arrangements for training and certification for different skill sets in road works, and improvements to the internship initiative already established within RTDA via a collaboration between Rwanda Development Board (RDB) and the Institution of Engineers Rwanda (IER) to recruit female candidates. The project will contribute to this program by upholding it to ensure its effectiveness and sustainability in the long run

59. In addition, the project will also support the creation of climate resilience committees whose role will be to operate early warning and emergency response systems to natural disasters. This activity will contribute to identifying risky points for women derived from natural disasters, ensure women’s voices are translated into interventions, and contribute to emergency response. To ensure sustainability, different activities can be put in place, including: (a) awareness raising in the communities and community dialogue; (b) training of trainers so that this awareness is permanent; (c) written agreement within the municipalities and communities facilitated by the client to ensure the conformity of the committees and that 50 percent of the members will be women (including in leadership roles); and (d) capacity building for women on leadership and negotiation skills. RTDA will collaborate with MINEMA to use the existing country system to create these committees.⁴⁰

Table 2: Activities Proposed to Include Gender Considerations in the Project

	Activity	Estimated Cost
1	Training fee for excavator and wheel loaders for 4 months	US\$26,000
2	Internship for women engineers (16 persons) (included in the supervision consultant fees)	US\$270,000
3	Women committees on climate (832 people to be trained) 2 people from each sector in 416 sectors of the country (gender inclusive)	US\$ 40,000

⁴⁰ Indicator for the women-led communitarian structures: Percentage of women in leadership positions in communitarian structures (Target: 50%).



60. **The project will align with the World Bank’s Good Practice Note on addressing SEA and SH in investment projects involving major civil works.** The project will also establish a robust grievance redress mechanism and ensure adherence to the stakeholder engagement plan.

Citizen Engagement

61. **The project will adopt a robust citizen engagement approach throughout its cycle, taking advantage of Rwanda’s well-established Grievance Redress Mechanism (GRM).** Rwanda achieved substantial progress based on strong leadership where leaders and citizens have a shared vision of the development projects. Citizen engagement considerations are part of the project implementation strategy, building on ongoing projects (LVTP, FRDP) practices. The project will implement a thorough consultation and communication strategy with the project stakeholders including citizens along the damaged roads and bridges to develop an inclusive approach in considering the local communities’ concerns. RTDA will organize public and stakeholder consultations in the districts concerned by the project to collect their views and concerns on the project and hear their proposals to remedy any adverse impact on their socioeconomic activities and their livelihoods. The stakeholder engagement plans, based on inclusive consultations, include a project-specific GRM that outlines opportunities and avenues by which project stakeholders can seek timely redress for project-related grievances and complaints. The project will track locals’ satisfaction regarding improvements made through the roads and bridges rehabilitation and repair. The related beneficiary feedback will be monitored during project implementation through an indicator in the Results Framework.

B. Fiduciary

(i) Financial Management

62. **An FM assessment was carried out for the project in accordance with the World Bank Policy and Directives on Investment Project Financing (IPF).** The assessment was carried out on the implementing entity, RTDA to determine whether it has acceptable FM arrangements, which will ensure that: (i) funds are used for the intended purposes in an effective, efficient, and economical way; (ii) financial reports will be prepared in a reliable, accurate, and timely manner; and (iii) project assets will be appropriately safeguarded.

63. **The project benefits from public financial management (PFM) reforms the country have undergone, the project’s oversight and accountability arrangements, and the experience obtained from implementing World Bank-funded projects.** The PFM system is anchored in solid legal frameworks and PFM strategies. Progress has been made in budget planning, expenditure efficiency, enhancement of the internal audit function, external audit coverage, and financial reporting. The Public Expenditure and Financial Accountability (PEFA) 2022 confirmed these strengths. The project has an acceptable project oversight and accountability structure which involves a national SC, management oversight, internal oversight bodies (internal audit and audit committee), external oversight bodies (Office of the Auditor General), and Parliament that approves the government’s budget.

64. **Based on the assessment conducted, the FM risk of the project is rated moderate.** RTDA has adequate experience in managing World Bank-financed operations and has mostly complied with key FM deliverables. The following key risks are identified: (i) inadequate preparation of Annual and Work Plan and Budget (AWPB) which could lead to irregularities in spending and accountability of resources; and (ii) delay in submission of quality financial reports and taking timely action on audit report findings. These risks will be mitigated through maintaining adequate staff at the RTDA SPIU throughout the life of the project; provision of capacity building and training on World Bank-financed operations and using internal audit functions to assist in the timely action on audit report findings. A PIM will clarify roles and responsibilities as well as the timelines for the preparation of AWPB, reporting, and auditing requirements. An action plan has been prepared to help mitigate the identified risks and this will be monitored throughout project implementation.

65. **The FM arrangement of the project will be the following:** AWPB will be prepared in detail for each of the components/categories with the details of IDA and GoR resources which will be submitted to the World Bank for approval.



The SPIU at RTDA will receive training on managing World Bank-financed projects. RTDA will open a designated account to receive funds for the project; and submit quarterly financial reports and annual audit reports to the World Bank. The internal audit unit of RTDA will audit the project and make the reports available to the World Bank as required. RTDA will have the responsibility to take timely action on the audit report findings and notify the same to World Bank. Detailed FM arrangements will be captured as part of the PIM.

(ii) Procurement

66. **The project procurement will be carried out in accordance with the World Bank Procurement Regulations for Borrowers under Investment Project Financing**, dated September 2023, hereafter referred to as ‘Procurement Regulations’. The project will be subject to the World Bank’s Anticorruption Guidelines, dated July 1, 2016, and beneficiary disclosure requirements. The project will use Systematic Tracking of Exchanges in Procurement (STEP), a planning and tracking system that will provide data on procurement activities, establish benchmarks, monitor delays, and measure procurement performance.

67. **A Project Procurement Strategy for Development (PPSD) will set out the selection methods to be followed by the borrower** during project implementation in the procurement of goods, works, non-consulting and consulting services financed by the World Bank. The underlying Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

68. **Rated Criteria will be used for all international competitive procurements, with exception of procurement of pharmaceuticals, vaccines, off-the-shelf goods and educational materials**, commodities and other exceptions cleared by the World Bank’s Chief Procurement Officer on a fit-for-purpose basis, where use of Rated Criteria is not mandatory. The rated criteria are also a tool for taking sustainable procurement (environmental, social, economic and climate change) into consideration in the procurement processes.

69. **Based on risks and gaps identified, the project procurement risk rating is moderate.** The concept stage Procurement Risk Assessment and Management System (PRAMS) with moderate procurement performance was validated during the appraisal. Key risks identified were: (a) corruption, collusion, and conflicts of interest; (ii) contract price increase due to inflation, currency instability, and interest rates; (iii) unexpected extreme weather, intense rainfall, and landslides; and (iv) access and registration issues by bidders to e-procurement system, and limited skills for contract management.

70. **Recommended mitigation measure are as follows:** (i) Improve the complaint management system, strengthen internal and external audits, and disclosure of information and procurement data to the public; (ii) ensure provision for price adjustment is included in contract documents; (iii) ensure appropriate design and work plan by works contractors and adequate design review and monitoring consultancy is put in place; and (iv) ensure RTDA initiates a discussion with RPPA E-GP unit to solve the access to E-GP issue.

71. **Currently the RTDA-SPIU has three experienced procurement staff.** The existing procurement staff has the required competence to manage additional procurements of the project. However, the workload will require support from a technical assistance on procurement to be recruited.

C. Legal Operational Policies

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Area OP 7.60	No



D. Environmental and Social

72. **The environmental and social risk ratings of the project are substantial.** This is due to the nature and scale of activities, involving the spot rehabilitation of 254 km of national roads, 130 km of district roads, and repairing or maintaining 20 bridges. Anticipated environmental and social risks and impacts are expected to be few, site-specific, and manageable, mainly concerning environmental aspects, such as vegetation clearance, noise, and air pollution. The project is situated outside existing protected areas, but environmental risks are still significant, particularly related to roads and bridge rehabilitation activities under subcomponents 1.1, 1.2, and 1.3 of the projects. The rehabilitation and repairing interventions are anticipated to have limited scale and site-specific environmental risks and impacts associated with the civil works at each location, such as clearance of vegetation, dust and noise nuisance, visual degradation of landscapes, pollution (debris, and other solid waste generation), ground/surface water contamination, soil erosion and sedimentation of surface water bodies, worker occupational health and safety risks and road traffic accidents, community nuisance and safety concerns due to traffic increase, soil and water pollution due to spills and leaks of oils, fuels, chemicals, temporary air quality nuisance due to air emission of CO₂ and NO_x from combustion of diesel from vehicles, hot and batch mix plant, diesel generator sets, noise pollution from vehicles, machinery, concrete mixing, and other construction activities; risk of inappropriate solid and liquid construction and domestic wastes transport, and disposal and management.

73. The social risks and impacts of the project activities, including land acquisition needs which will impact approximately 342 PAPs (national roads 121 PAPs, district roads 91 PAPs, and bridges 130 PAPs), health and safety risks, labor management challenges, Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) risks induced by labor force influx, exclusive vulnerable groups from project beneficiaries as well as weak stakeholder engagement and grievance mechanisms. These risks and impacts will be managed through various Environmental and Social Standards (ESS) and application of international best practice methods. The project will adhere to ESF requirements during implementation, by developing instruments such as Environment and Social Management Framework (ESMF) and Resettlement Plan (RP). Overall, the project aims to bring positive social benefits to the population but requires careful management of potential risks and impacts. The World Bank will provide support to the implementing agency through close monitoring and supervision with regular quarterly meetings.

74. The (SEA/SH) risk rating is moderate. The project will align with the World Bank's Good Practice Note on addressing SEA and SH in investment projects involving major civil works. The project will also establish a robust grievance redress mechanism (GRM) and ensure adherence to the stakeholder engagement plan, prepare an SEA/SH prevention and Response Action Plan with a referral pathway, implement SEA/SH-sensitive grievance process, ensure project workers sign Codes of Conduct and receive training on the same, and stakeholders are sensitized to SEA/SH and how to safely and confidentially report and receive support for SEA/SH incidents.

75. Currently, the institutional capacity of the implementing institution (RTDA) in managing environmental, social, health, and safety risks associated with the project during the implementation period is relatively improved and expected to be further enhanced through recruitment and assignment of dedicated ESHS staff (environmental and social specialists, health, and safety officer) to the project under SPIU-RTDA, as required. The project is enhancing its institutional capacity to manage environmental and social risks through dedicated staff recruitment.

76. **Given these anticipated potential environmental risks and impacts associated with the project, ESS1, ESS2, ESS3, ESS4, ESS5, ESS6, and ESS10 are applied.** Nevertheless, during implementation, if any unforeseen risks are identified related to other ESSs not applicable at this point, the project will consider the respective ESS and prepare and implement the ESF instruments associated with such newly identified risks and considered ESSs. Though the project obtained full deferral of environment, social and procurement requirements as well as condensed procedures under paragraph 12 of Section III of the IPF Policy (Projects in Situations of Urgent Need of Assistance or Capacity Constraints), the draft Stakeholders Engagement Plan (SEP) and Environmental and Social Commitment Plan (ESCP) were prepared by RTDA. As per the ESF requirements, to manage the anticipated environmental risks and impacts, the Borrower will develop ESF



instruments in line with the applicable ESSs, such as Environment and Social Management Framework (ESMF), Resettlement Framework (RF), Gender Based Violence Preparedness and Response Action Plan (GBV-PRAP), Labor Management Procedure (LMP), Environment and Social Impact Assessment (ESIA), and Resettlement Plan (RP), as required during implementation. The final versions of project ESF instruments, including ESCP, SEP, ESIA, RP, RF, ESMF, GBV-PRAP, and LMP, once reviewed and cleared by the World Bank, will be disclosed both in-country (RTDA website) and on the World Bank's external website during implementation before commencement of civil works.

V. GRIEVANCE REDRESS SERVICES

77. **Grievance Redress.** Communities and individuals who believe that they are adversely affected by a project supported by the World Bank may submit complaints to existing project-level grievance mechanisms or the Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed to address project-related concerns. Project-affected communities and individuals may submit their complaints to the Bank's independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred or could occur because of the Bank's non-compliance with its policies and procedures, and the Dispute Resolution Service, which provides communities and borrowers with the opportunity to address complaints through dispute resolution. Complaints may be submitted to the AM at any time after concerns have been brought directly to the attention of Bank Management and after Management has been given an opportunity to respond. For information on how to submit complaints to the Bank's Grievance Redress Service (GRS), visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the Bank's Accountability Mechanism, visit <https://accountability.worldbank.org>.

VI. KEY RISKS

78. **The overall project risk rating is moderate.**

79. **Environment and social risk is substantial. This is due to the location, type, sensitivity, and scale of project interventions and the capacity of RTDA.** Spot rehabilitation and maintenance of districts and national roads and repairing partially damaged bridges will have some localized adverse E&S risks and impacts. The substantial E&S risk for the project has also been justified by the capacity of the IA to implement environmental and social standards for ongoing projects and corrective measures taken to mitigate risk, such as financing for compensation of affected PAPs from the project. To improve the capacity related to the ongoing projects and those under preparation i, RTDA has confirmed that recruitment of all missing environment and social specialists and health and safety staff has been completed, and dedicated staff have been assigned to this project. Despite this measure, a detailed assessment of the IA's capacity found the response to be slow, which signals potential gaps related to the implementation of environmental and social risks and mitigation measures. Accordingly, the project will ensure, through its activities, adequate institutional capacity for the IA and other relevant institutions that will be directly or indirectly engaged in the implementation of the project. The project will also benefit from a pool of staff already working on the existing ongoing and pipeline projects (LVTP, FRDP, KLPCConnect).



PDO Indicators by PDO Outcomes

Baseline	Closing Period
Restored connectivity in areas of Rwanda affected by floods and landslides	
Number of people that benefit from improved access to sustainable transport infrastructure and services (disaggregated by gender) (Number)	
Mar/2024	Jun/2027
0	2,300,000
Restored access to sectors (number of sectors accessible due to roads and bridges rehabilitated) (Number)	
Mar/2024	Jun/2027
0	6
Restored access to socio-economic infrastructure (number of schools, health centers, markets accessible due to roads and bridges rehabilitated) (Number)	
Mar/2024	Jun/2027
0	10
Improved resilience of damaged transport infrastructure	
Number of critical embankments, bridges, culverts reinforced in the affected districts/sectors with climate resilient measures for adaptation and mitigation (Number)	
Mar/2024	Jun/2027
0	15

Intermediate Indicators by Components

Baseline	Closing Period
Component 1: Rehabilitation/repair of damaged transport infrastructure in a resilient and safe manner	
Number of kilometers of roads rehabilitated in a climate resilient manner (Kilometers)	
Mar/2024	Jun/2027
0	380
➤ Districts roads (Kilometers)	
Mar/2024	Jun/2027
0	130
➤ National roads (Kilometers)	
Mar/2024	Jun/2027
0	254
Number of brigdes rehabilitated (Number)	



Mar/2024	Jun/2027
0	20
Employment generated under rehabilitation works (Disaggregated by gender) (Number)	
Mar/2024	Jun/2027
0	100
Component 2: Environment and social risk management, Community Engagement and awareness campaign	
Number of road safety training and awareness campaigns conducted for school children, motorbike and truck drivers, local communities, and other road users in the project area (Number)	
Mar/2024	Jun/2027
0	15
Survey reports on citizen engagement available (Yes/No)	
Mar/2024	Jun/2027
No	Yes
Percentage of women in leadership positions in communitarian structures including on climate resilience committees. (Percentage)	
Mar/2024	Mar/2028
0	50
Component 3: Implementation support, monitoring, capacity building	
Share of women that find a job in the road/transport sector six months after completion of internship (Percentage)	
Mar/2024	Sep/2028
0	16
Number of staff from RTDA, MININFRA and MINEMA who benefited from capacity building trainings (Number disaggregated in Climate Changes and others) (Number) (Number)	
Mar/2024	Jun/2028
0	20
Number of women trained and certified in the use of heavy machinery (Number) (Number)	
Mar/2024	Jun/2028
0	16
Number of women participating in internship program (Number) (Number)	
Mar/2024	Jun/2028
0	16
Component 4: Contingent Emergency Response	



Monitoring & Evaluation Plan

Component 1: Rehabilitation of damaged transport infrastructure in a resilient and safe manner	
Number of kilometers of roads rehabilitated in a climate resilient manner (Kilometers)	
Description	The total length of national road rehabilitated in a climate-resilient manner under the project
Frequency	At the start and after completion of the works
Data source	Monitoring Consultant progress reports approved by RTDA
Methodology for Data Collection	Review of the progress reports
Responsibility for Data Collection	RTDA
Districts roads (Kilometers)	
Description	The total length of district roads rehabilitated in a climate-resilient manner under the project (in kilometers)
Frequency	At the start and after completion of the works
Data source	Monitoring Consultant progress reports approved by RTDA
Methodology for Data Collection	Review of the progress reports
Responsibility for Data Collection	RTDA
National roads (Kilometers)	
Description	The total length of the national road rehabilitated in a climate-resilient manner under the project (in kilometers)
Frequency	At the start and after completion of the works
Data source	Monitoring Consultant progress reports approved by RTDA
Methodology for Data Collection	Review of the progress reports
Responsibility for Data Collection	RTDA
Number of bridges rehabilitated (Number)	
Description	The total number of bridges rehabilitated in a climate-resilient manner under the project)
Frequency	At the start and after completion of works
Data source	Monitoring Consultant progress reports approved by RTDA
Methodology for Data Collection	Review of the progress reports
Responsibility for Data Collection	RTDA
Employment generated under rehabilitation works (Disaggregated by gender) (Number)	
Description	Number of workers engaged by contractors for the rehabilitation and upgrading of the project. (Disaggregated by gender)
Frequency	At the start and after completion of works
Data source	Monitoring Consultant progress reports approved by RTDA
Methodology for Data Collection	Review of the progress reports
Responsibility for Data Collection	RTDA



Component 2: Environment and social risk management, Community Engagement and awareness campaign	
Number of road safety training and awareness campaigns conducted for school children, motorbike and truck drivers, local communities, and other road users in the project area (Number)	
Description	The indicator provides information on the number of road safety training and awareness campaigns conducted for school children, motorbike and truck drivers, local communities, and other road users in the project area.
Frequency	At the start and after completion of the works
Data source	Monitoring Consultant progress reports approved by RTDA
Methodology for Data Collection	Review of the progress reports
Responsibility for Data Collection	RTDA
Survey reports on citizen engagement available (Yes/No)	
Description	To confirm whether the reports on citizen engagement for the project implementation are available
Frequency	At the start and after completion of the works
Data source	Monitoring Consultant progress reports approved by RTDA
Methodology for Data Collection	Review of the progress reports
Responsibility for Data Collection	RTDA
Percentage of women in leadership positions in communitarian structures including on climate resilience committees. (Percentage)	
Description	This indicator will measure the percentage of women in leadership positions on climate resilience committees that will be created under the project
Frequency	Annual
Data source	Monitoring Consultant progress reports approved by RTDA
Methodology for Data Collection	Review of the progress reports
Responsibility for Data Collection	RTDA
Component 3: Implementation support, monitoring, capacity building	
Share of women that find a job in the road/transport sector six months after completion of internship (Percentage)	
Description	Measure the proportion of women who can find job six month after the training
Frequency	After six months of internship completion
Data source	Monitoring Consultant progress reports approved by RTDA
Methodology for Data Collection	Review of the progress reports
Responsibility for Data Collection	RTDA
Number of staff from RTDA, MININFRA and MINEMA who benefited from capacity building trainings (Number disaggregated in Climate Changes and others) (Number) (Number)	
Description	Provide the data on staff training during the project implementation
Frequency	Annual
Data source	Monitoring Consultant progress reports approved by RTDA
Methodology for Data Collection	Review of the progress reports
Responsibility for Data Collection	RTDA
Number of women trained and certified in the use of heavy machinery (Number) (Number)	
Description	Count the number of women trained during the project implementation



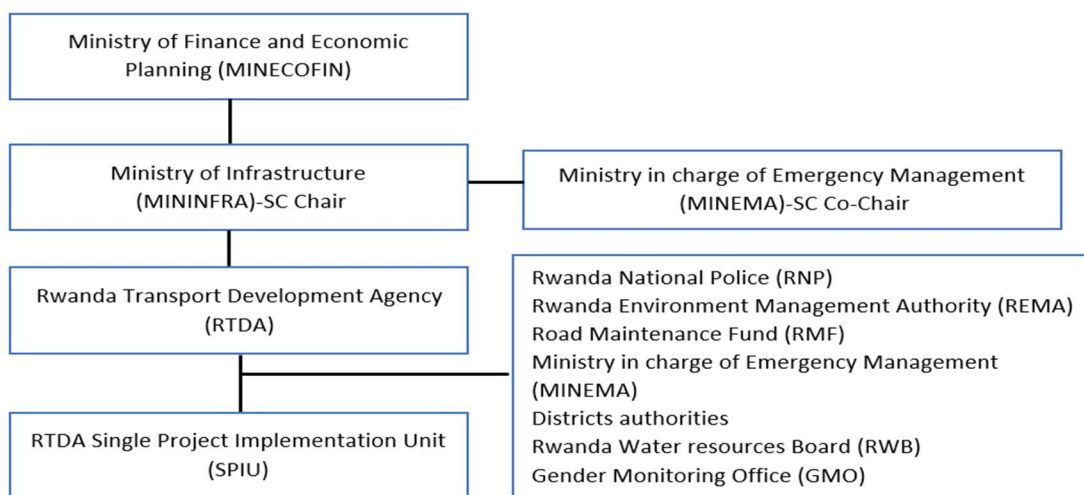
Frequency	Annual
Data source	Monitoring Consultant progress reports approved by RTDA
Methodology for Data Collection	Review of the progress reports
Responsibility for Data Collection	RTDA
Number of women participating in internship program (Number) (Number)	
Description	Count the number of women trained during the project implementation
Frequency	Annual
Data source	Monitoring Consultant progress reports approved by RTDA
Methodology for Data Collection	Review of the progress reports
Responsibility for Data Collection	RTDA



ANNEX 1: Implementation Arrangements and Support Plan

A. Institutional and Implementation Arrangements

1. The Ministry of Finance and Economic Planning (MINECOFIN) is the representative of the government on the issues related to the Financing Agreement. It will offer guidance and leadership on the utilization of the project’s counterpart funds. Other entities involved are MININFRA, RTDA, the Road Maintenance Fund, the Rwanda Environment Management Authority (REMA), the Rwanda Water Resources Board, the Gender Monitoring Office (GMO), and the district authorities. MININFRA and MINEMA will co-chair the project steering committee and provide strategic guidance for implementation. The project implementation will be organized as described in the below organizational chart:



2. Overall coordination. Under the coordination of the MININFRA, the coordination of the project will be led by the SPIU within RTDA, which will serve as the direct interlocutor with the World Bank and will report on project progress from preparation through implementation and closure.

3. Implementation agencies and responsibilities arrangements. The implementing agency is RTDA through its Single Project Implementation Unit (SPIU). The SPIU will handle technical matters, procurement, financial, environment and social issues for all the components, sub-components, and related activities. The capacity of the SPIU will be reinforced by additional staff to be recruited as needed.

4. Team composition to implement the project. For a successful implementation of the project, it was agreed to designate a team in RTDA for the project preparation and implementation. RTDA will submit the list of the designated staff (per specialties) prior to project negotiations. Dedicated staff for the project were assigned by RTDA prior negotiations.

5. Role of the Ministry of Finance and Economic Planning (MINECOFIN). MINECOFIN is the legitimate representative of the government on the issues related to the Financing Agreement. It will offer guidance and leadership on the utilization of the project’s counterpart funds.

6. Role of the Ministry of Infrastructure (MININFRA). MININFRA is responsible for overall transport policy and strategic planning, the creation of a transport enabling environment, and setting of transport rules, regulations, standards, and strategic planning. The Directorate General of Transport will be providing guidance related to policy and strategy during implementation.



7. **Role of the Rwanda Transport Development Agency (RTDA).** RTDA assists MININFRA with the management and administration of the transport sector, and the planning, prioritizing, approval, delivery, management, and maintenance of infrastructure, including support to districts as the managing and implementing agencies. RTDA will draw on expertise from the Rwanda National Police (RNP) for road safety, Rwanda Energy Group Limited (REG) for electrical utilities relocation, and Water and Sanitation Corporation (WASAC Ltd) for water utilities relocation.
8. **Role of the Road Maintenance Fund (RMF).** The RMF is responsible for road maintenance including rehabilitation. It is funded from the public budget. Maintenance of national roads, and district roads class I and class II are under the financing of the RMF.
9. **Role of the Rwanda Environment Management Authority (REMA).** The mission of REMA is to supervise and monitor environmental management and ensure that issues relating to the environment receive attention in all national development plans. REMA will play the leading role of monitoring the activities of the project according to the Organic Law establishing REMA and its functions.
10. **Role of district authorities.** The district authorities in the project area are the coordinating body for any resettlement activities at the district level. They oversee, coordinate, and facilitate the implementation process of resettlement activities across local governments under their jurisdiction. The district-level departments (infrastructure, water, and energy officers in the case of this RAP) in collaboration with grassroots administrative officials (Sectors and Cells' executive secretaries) provide a review and monitoring role and provide political and administrative support for the implementation of the Resettlement Action.

B. Results Monitoring and Evaluation Arrangements

11. **The project objectives and corresponding indicators are designed to measure the results of the entire intervention.** The M&E system will capture information to assess project results against the targets set as part of the Results Framework. The progress of project indicators will be measured through the implementation support missions and progress reports. Specific details for program management and reporting will be laid out in the Project Implementation Manual (PIM) that will serve as the overall guiding document for SPIU. The Recipient will carry out a Mid-Term Review, two years after effectiveness.

C. Sustainability

12. **RECOR is expected to address sustainability of the infrastructure investments through enhanced ownership of the participating administration.** The roads and bridges repair/reconstruction will be implemented through works contracts (bill of quantities). The maintenance of the investment is guaranteed for the following years after works completion as RMF will take over. In Rwanda, the existing RMF has the responsibility of ensuring sustainability of long-term maintenance, and enforcement of axle load control along the corridor will help preserve the road assets. The GoR has managed to keep the national paved road asset at an acceptable riding standard since creation of RTDA in 2010 using the RMF as core financing source for maintenance. Annual assessment of the riding quality is conducted with the use of roughness meters and bump integrators and reports are shared with the development partners via the annual Transport Sector Working Group sessions.

D. Financial Management

13. **Planning and budgeting.** RTDA will follow the Government's planning and budgeting procedures preparing it with input from various stakeholders. The project budgets will also be presented to the National Steering Committee for approval and included in the overall country budgets approved by the Parliament. The approved budgets will be monitored on a monthly and quarterly basis by the preparation and analysis of budget execution reports including: (a) budget for the period and for the year; (b) actual expenditure for the period and to date; (c) future expenditure commitments; and (d) balance of period budget remaining (actual expenditure and



commitments together compared to period budget). The consolidated annual workplan and budget that clearly show planned activities under each component and financing source will be submitted to the World Bank for no-objection.

14. **Accounting and staffing.** RTDA uses the Integrated Financial Management System (IFMIS) to record its transactions. There is a well-established SPIU for RTDA. The current staffing level of these units in terms of finance staff in total is six (Financial Manager, FMS, and Four Accountants), which is deemed adequate. This project can start with the current level of staffing at RTDA and the need to have additional personnel will be reviewed during implementation. There will be a comprehensive start-up workshop where RTDA will be sensitized on financial management requirements for the project to build on capacity on managing World Bank financed operations. Regular training will thereafter be provided for continuous improvement during project implementation.

15. **Internal control and internal audit.** RTDA is governed by the legal frameworks and manuals governing public finance. The project involves financing from both IDA and GoR and has multiple components and subcomponents which will involve specific arrangements such as CERC. Therefore, RTDA will develop a PIM that will reflect the FM arrangements under this project, covering the arrangements under each of the components. The PIM will reflect detailed internal control arrangements for the project, including the extent of segregation of functions in payment processing and internal check mechanisms, in addition to payment approval and authorization arrangements. To enhance internal control arrangements for the project, the internal audit unit in RTDA will review project activities, in accordance with the Annual risk assessment and Internal Audit plan and submit reports to the project management team, the audit committee and to the World Bank.

16. **Financial reporting.** RTDA will prepare and submit quarterly interim financial reports (IFRs) to the World Bank within 45 days after the end of the quarter end. The interim financial reports will be used to monitor project financial progress, including the rate of budget execution and level of disbursements. Similarly, the RTDA will prepare annual project financial statements, which will be submitted to the external auditor within 45 days after the end of the fiscal year and audited financial statements to the World Bank within six months after the end of the fiscal year. The Financial report for RTDA will, at a minimum, include sources and uses of funds (revenues and expenditures statement), financial position statement, cash flow statement, budget execution report; Designated Account activity statement for each designated account; notes on accounting policies and appendices.

17. **External audit.** The project will be subject to external audit by the Office of the Auditor General (OAG) who has been auditing other World Bank-funded projects implemented by the Government of Rwanda. Should the OAG seek to outsource the audit, the firm must be acceptable to IDA. The audit reports and management letters will be submitted to the World Bank within six months after the end of the financial year. The audit reports will be publicly disclosed in accordance with the World Bank Access to Information Policy. Upon receipt of the audit reports, each of the implementing agencies will be expected to prepare an action plan to address the audit findings. In other projects managed by RTDA, concerns were raised on value for money which should be closely monitored in this project. RTDA will closely monitor activities to avoid such irregularities. Follow-up on audit recommendation implementation will be conducted as part of regular World Bank FM supervision missions and quarterly review of audited IFRs.

18. **Funds flow arrangements.** The project will maintain a segregated Designated Account for RTDA; which will be maintained at the National Bank of Rwanda and will be denominated in US dollars. It will also maintain a Project Account at National Bank of Rwanda denominated in Rwanda francs that will receive funds from the GoR for counterpart contribution and any transfer that may be needed from the DA. Disbursements will follow the report-based disbursement method whereby advances will be made based on two quarter forecasts to be prepared by RTDA. The project may also use direct payments, advances to the Designated Account, reimbursement and special commitments depending on the case. Upon effectiveness, the project will submit to the World Bank a request for withdrawal of funds based on the initial six-month expenditure forecast. Based on the request, the



World Bank will transfer the proceeds of the credit to the Designated Account. Subsequent replenishment of the Designated Account will be based on the submission of application of withdrawal accompanied by quarterly IFRs. The detailed modalities will be presented in the PIM and the Disbursement and Financial Information Letter (DFIL). The project has CERC component and the most effective funds flow mechanism for CERC activities would be assessed and determined should this component be activated.

FM Risk and Action Plan

19. **The FM risk of the project is rated Moderate.** The key risks identified are: (i) inadequate preparation of Annual Work Plan and Budget (AWPB) which could lead to irregularities in spending and accountability of resources; and (ii) delay in submission of quality financial reports and taking timely action on audit report findings.

20. **Mitigating measures have been incorporated in the project,** including provision of capacity building and training on World Bank-financed operations and using internal audit functions to assist in the timely action on audit report findings. A Project Implementation Manual will clarify on the roles and responsibilities as well as the timelines for preparation of AWPB, reporting and auditing requirements. Action plan has been prepared which will help to mitigate the identified risks and this will be monitored throughout project implementation.

Table 1: Action plan to mitigate risks.

No.	Action	Timeline	Responsibility
1	Prepare annual work plan and budget with clarity on components, categories, and financiers	Annually, March 31	RTDA
2	Prepare FM section of the PIM to detail out internal control processes and roles and responsibilities of entities	Effectiveness condition	RTDA
3	Enroll the project into IFMIS for proper recording of transactions	After effectiveness	RTDA
4	Internal audit (IA) to be conducted based on the risk assessment of the project by the IA unit and share with the Bank the reports	As per the annual audit plan	RTDA
5	Provide a plan for implementation of recommendations of internal and external audit findings	Within a month after the receipt of the audit report	RTDA

E. Procurement

21. **Procurement for the project will be carried out in accordance with the ‘World Bank Procurement Regulations for Borrowers under Investment Project Financing’,** dated September 2023, hereafter referred to as ‘Procurement Regulations’. The project will be subject to the World Bank’s Anticorruption Guidelines, dated July 1, 2016, and beneficiary disclosure requirements. The project will use Systematic Tracking of Exchanges in Procurement (STEP), a planning and tracking system that will provide data on procurement activities, establish benchmarks, monitor delays, and measure procurement performance.

22. **Project Procurement Strategy for Development (PPSD),** which looked at the market, procurement risks, procurement options and sets out the selection methods to be followed by the borrower for major activities during project implementation in the procurement of goods, works, and non-consulting and consulting services financed by the project, is prepared by the Borrower and under review by the World Bank. The Procurement Plan is part of PPSP and includes procurement plans of the project, at least for the first 18 months and will be updated annually



or as required to reflect the actual project implementation needs and improvements in institutional capacity.

Box 2.1. Summary of the PPSD

The project allocation is USD80 million, implemented by RTDA. The Project Development Objective is to restore the connectivity in areas of Rwanda affected by floods and landslides by rebuilding the damaged transport infrastructure in a climate-resilient manner.

Procurement of the project is mainly rehabilitation of road and bridges.

RTDA-SPIU has an established structure with adequate procurement staffing and the required experience in implementing similar projects.

In addition, the assessment revealed that:

- The Rwanda economy is subjected to considerable variation in currency, inflation, and interest rates. The operational context in Rwanda is influenced by the limited capacity of financial institutions, high transportation costs on import of all construction materials except cement and limited local contracting capacity.
- Rwanda has various hills and valleys, which pose topological challenges when constructing roads. The construction of the roads during the entire year may not be possible due to intense rainfall and consequent land sliding. The maintenance costs are high because of the climate, which is brought about by intense rainfall that washes away road surfaces.
- RTDA has implemented various projects and programs funded by the GoR and other multilateral development financing institutions. RTDA staff is familiar with the various international procurement procedures including the World Bank. The existing staff is functioning at overstretched capacity due to various ongoing projects and programs. Training the existing staff in World Bank procurement regulations and deploying additional staff such as a procurement specialist and a contract management specialist to augment the existing capacity and develop the institutional memory for managing large road construction projects is necessary for the successful implementation of the project's procurement.
- RTDA's contracts procurement processing and procurement lead time will be reduced through trainings and use of TAs, while the consultants and contractors' performance monitoring will be strengthened. RTDA will carry out an internal diagnostic assessment to understand the reason(s) for the longer lead time and carry out necessary government process reengineering with the aim of awarding the contracts within the stipulated bid validity.

Though Rwanda's construction market is relatively small when compared to other EAC member countries, it has evinced interest from international contractors. They are already working on contracts of similar magnitude and complexity.

Identified risks of the project are: (i) corruption, collusion, and Conflicts of interest; (ii) contract price increase due to inflation, currency instability, and interest rates; (iii) unexpected extreme weather, intense rainfall, and land slide; (iv) access and registration issues by bidders to use e-procurement system; and (v) limited skills for contract management under OPBRC.

Recommended risk mitigation measures are: (i) Improve the complaint management system, strengthen internal and external audits, and disclosure of information and procurement data to the public; (ii) Make sure provision for price adjustment is included in the contract document; (iii) Appropriate design and work plan by the contractor and adequate design review and monitoring consultancy is put in place; (iv) RTDA will initiate discussion with RPPA E-GP unit to solve the access issue; and (v) conduct intensive training on management of OPBRC.

Based on the detailed project condition, market context analysis, including the experience and capacity of the client and potential risks the following procurement approaches and strategy are recommended.

1. **For damaged sections located on national paved roads:** Direct contracting through existing maintenance contractor of the respective road.
2. **For damaged sections located on national unpaved and district roads and damaged bridges:** using limited competitive bidding to select contractors for national unpaved and district roads to speed-up the procurement process.



Selection of consultants or firms for supervision services: Competitive selection methods by Direct RFP are recommended. Civil works contracts for construction supervision assignments are basically time-based contracts, and the selection will follow the Quality and Cost Based Selection (QCBS) method.

Duly considering the procurement profile and contract management arrangements, based on the perceived risks and proposed mitigation measures, the project's overall procurement risk rating is determined as **Moderate**. The risk rating on procurement will be reviewed and updated periodically by the World Bank.

23. **STEP:** The project will use Systematic Tracking of Exchanges in Procurement (STEP), a planning and tracking system, which will provide data on procurement activities, establish benchmarks, monitor delays, and measure procurement performance.

24. **E-Procurement system:** RTDA will be using the Rwanda e-Procurement system (UMUCYO) for “post” procurement activities, in parallel with the World Bank STEP system. However, when the post review procurements are within international competitive threshold, the implementing agencies would advertise the procurement notices/request for expression of interest on UNDB and World Bank external site, in addition to UMUCYO.

25. **Beneficial Ownership:** Beneficial Ownership Disclosure is required for all new procurement advertised or invited on or after July 1, 2022, subject to open or limited international competition under all IPF projects, that are governed by the Procurement Regulations, and hence will apply to the project accordingly.

26. **Procurement risk assessment.** A procurement capacity and risk assessment has been carried out by the World Bank of implementing agency, to review the organizational structures and functions, experience, staff skills and capacity, procurement cycle management, quality, and adequacy of supporting and control systems and record keeping. Based on the assessment the following risks are identified: (i) Corruption, collusion, and Conflicts of interest; (ii) Contract price increase due to inflation, currency instability, and interest rates; (iii) Unexpected extreme weather, intense rainfall, and land slide; (iv) Access and registration issues by bidders to UMUCYO e-procurement system; (v) Limited skills for contract management under OPBRC. The current PIU structure of RTDA-SPIU is adequate.

27. **The proposed mitigation measures for the identified risks are:** (i) Improve the complaint management system, strengthen internal and external audits, and disclosure of information and procurement data to the public; (ii) To make sure provision for price adjustment is included in the contract document; (iii) Appropriate design and work plan by DB contractor and adequate design review and monitoring consultancy is put in place; (iv) RTDA will initiate discussion with RPPA E-GP unit to solve the access issue; (v) Conduct intensive training on management of the OPBRC.

28. **Project Procurement Risk Rate:** Based on procurement assessment of the implementing agencies, market practice and nature of procurement activities of the project, the project procurement risk is rated **Moderate**.

29. **Currently RTDA-SPIU has five experienced procurement staff.** The number and competence of existing procurement staffs is adequate to manage additional procurements of the project.

30. **There is adequate procurement oversight mechanism in place within RTDA.** The internal audit unit at RTDA and Office of Auditor General (OAG) have an oversight role. The OAG conducts procurement auditing regularly on annual basis.

31. **The assessment revealed that in general, the track record of procurement performance of the implementing agency, RTDA-SPIU is satisfactory.** The existing procurement staffs of RTDA-SPIU is adequate both in number and competence.

32. **Preliminary procurement plan with list of procurable items with corresponding cost estimates, review types and selection methods will be output from the PPSD.** The latest version of the World Bank’s standard



procurement documents will be used for all procurements when approaching international market.

33. **Use of borrowers' procurement procedures.** The IAs will follow World Bank procurement regulations as required by the financing agreement. When approaching the national market, borrower's own procedures will be used as appropriate and as provided by World Bank procurement regulations. When approaching the national market, RTDA will use the national standard procurement documents, subject to review and acceptance by the World Bank by incorporating additional requirements provided in the World Bank SPD for small works, and to make sure provision for application of World Bank Anti-Corruption guideline and World Bank's right to audit and all ESF, climate, SEA/SH and ESHS requirements are included.

34. **Procurement of Works, Goods and Non-Consultancy Services:** for procurement of works, goods, and non-consultancy service contracts, RTDA's own procurement procedures and SBDs as agreed on and deemed satisfactory to the World Bank will be used, when approaching the national market. Procurements while approaching the international market will be done using the latest version World Bank's Standard Procurement Documents, and rated criteria will apply, except for procurement of Commodities, Vaccines, and Pharmaceuticals. Small value works, goods and non-consultancy service will be undertaken through request for quotation procedures. The request for quotation will indicate the specifications of works, goods, and non-consultancy service as well as the delivery/completion time and the contract award will be based on comparing price quotations from several qualified contractors/suppliers, with a minimum of three, to ensure competition. Direct contracting shall be used where the PPSD informs so and it is to the benefit of the project and in accordance with the procurement regulation.

35. **Procurement of consultancy services.** Procurement methods to be used are as specified in the PPSD. Project staffs required for the implementation will be hired following World Bank regulation for positions identified as consultant (IC) and following Project implementation Support Personnel, paragraph 7.32 of Procurement Regulations, for positions not identified as consultants (IC). Paragraph 7.32 of the procurement regulation provides, quote, "Project implementation staff, individuals contracted by the Borrower to support project implementation, other than individual consulting positions identified in the Legal Agreement, may be selected by the Borrower according to its personnel hiring procedures for such activities, as reviewed, and found acceptable by the Bank.", unquote, applies for the project. All positions, whether identified as IC where World Bank procurement regulation is used, or project staffs hired using agencies' own procedure shall be included in the procurement plan. Operating costs. The items to be identified as operating cost will be procured using the borrower's procurement and administrative procedures subject to review and acceptable by the World Bank including selection of project implementation, non-professional, support personnel not identified as consultant (IC).

36. **Record keeping.** All records pertaining to award of tenders, including bid notification, register pertaining to sale and receipt of bids, bid opening minutes, bid evaluation reports and all correspondence pertaining to bid evaluation, communication sent to/with the World Bank in the process, bid securities, and approval of invitation/evaluation of bids will be retained by respective agencies and in electronic or hard copy and uploaded in STEP.

37. **Disclosure of procurement information.** The following documents shall be disclosed on the agencies' websites: (a) a Procurement Plan and updates; (b) an invitation for bids for goods and works for all contracts; (c) Request for Expression of Interest for selection/hiring of consulting services; (d) contract awards of goods, works, and non-consulting and consulting services; (e) a monthly financial and physical progress report of all contracts; and (g) an action taken report on the complaints received on a quarterly basis.

38. **When approaching international market (ICB), the following details shall also be published in the United Nations Development Business and the World Bank's external website:** (a) an invitation for bids for procurement



of goods and works following open international market approaches, (b) Request for Expression of Interest for selection of consulting services following open international market approaches, and (c) contract award details of all procurement of goods and works and selection of consultants using open international market approaches.

39. **Fiduciary oversight by the World Bank.** The World Bank shall prior review contracts according to prior review thresholds set forth in the PPSD/Procurement Plan. All contracts not covered under prior review by the World Bank shall be subject to post review during implementation support missions and/or special post review missions, including missions by consultants hired by the World Bank or third-party independent auditor delegated by the World Bank. To avoid doubts, the World Bank may conduct, at any time, independent procurement reviews of all the contracts financed under the loan. All procurement post reviews are carried out online in STEP. For this reason, uploading of procurement documents of post review contracts should be done in a timely manner and always kept up to date.

40. **Contract Management.** Increased contract management and regular monitoring of the contracts are necessary for timely execution. In addition, the agency will develop key performance indicators (KPIs) for contracts and the KPIs will be monitored during actual execution of contracts. A fully staffed SPIU will be responsible for project implementation.



ANNEX 2: Climate Adaptation and Mitigation

<p>Component 1: Rehabilitation of damaged transport infrastructure in a resilient and safe manner to connect districts affected by floods.</p> <p>1.1: Rehabilitation of national roads (US\$51.33 million, comprising US\$43.50 million IDA and US\$7.83 million GoR funding)</p> <p>1.2: Rehabilitation of district roads (US\$26.26 million, comprising of US\$22.25 million IDA and US\$4.01 million GoR funding).</p> <p>1.3: Rehabilitation of bridges bridges (US\$12.10 million, comprising of US\$10.25 million IDA and US\$1.85 million GoR funding)</p>	<p>Adaptation</p> <p>The design of the rehabilitation and repairs of roads and bridges incorporate climate resilient standards, with updated manuals⁴¹</p> <ul style="list-style-type: none"> i) Embankment design: In flood-prone areas, ensure the height of the embankment is adequate to resist increasing levels of flooding without causing drastic washouts. ii) Improved drainage systems: improving water penetration quality of the pavement surface by using gilsonite-modified bitumen seals where applicable. Constructing drainage canals along sections to channel away the quantity of water that damaged the roads. iii) Resilient materials: strengthening the base or/and sub-base of sections with more resilient material compacted. iv) Upgrade of bridges: upgrading bridges to support the quantity of water flow in the rivers. v) Sealing the surface (for paved roads): to protect sections against infiltration that can lead to a washup of the base. vi) Spot improvements: backfills, retaining walls and gabions, re-graveling, construction, or repair of layers of the road, masonry drainage, signposts, crash barriers, planting trees and grass, pipe culverts, rockfill, landslide removal, and back slope trimming, among others. <p>Mitigation</p> <ul style="list-style-type: none"> i) Rehabilitation and repair of roads at national and district levels in the targeted regions using climate-resilient standards.⁴² ii) Rehabilitate and repair bridges in the targeted regions using climate-resilient standards. iii) Rehabilitation to resist landslides, flooding, and erosion through measures such as stabilization of slopes and embankments, grass and tree plantation, and improved drainage systems.
<p>Component 2: Environment and social risk management, community engagement, and awareness campaigns (IDA, US\$2.90 million).</p>	<p>Adaptation</p> <ul style="list-style-type: none"> • The project invests in the creation of climate resilience committees led by women which will give views on climate resilience intervention prioritization.
<p>Component 3: Implementation support, monitoring, capacity building (IDA, US\$1.10million).</p>	<p>Adaptation</p> <ul style="list-style-type: none"> • The project provides technical assistance and institutional support for climate adaptation and mitigation in the project implementation. The activity will support capacity building of the staff of RTDA, MININFRA, and MINEMA involved in the project implementation, to enhance and broaden their skills in climate change mitigation and adaptation and gender. It will finance engagement sessions with women in the project area to identify and address barriers that women face to participate in road works in low, medium, and high-level skills.
<p>Component 4: Contingent Emergency Response (US\$0 million).</p>	<p>This component would draw from the uncommitted resources from other project components to cover an emergency response, including from natural hazards and climate change impacts. The task</p>



	team will ensure that all eligible activities included in the CERC Manual/CERC Annex of the POM are Paris Aligned.
--	--

⁴¹ The updated manuals include:

- Build Back Better Guidelines for Bridges/Structures
- Emergency responses to bridge, slope, and flooding disasters
- Specifications for Floating Pontoon Bridges
- Best practices for right of way erosion control measures guideline
- Guidelines for Sealing Technologies
- Guide on road materials recycling & stabilization
- Gravel road inspections manual
- Gravel roads maintenance manual

⁴² Climate resilient design and construction standards ensure that road infrastructure, bridges and drainage infrastructure can cope with current and future climate conditions that are above normal and require particularized design.



ANNEX 3: List of Damaged Roads and Bridges per District

S/N	Description	District
National Paved Roads		
1	Rehabilitation of Muhanga – Ngororero - Mukamira road (111Km)	Nyabihu,Ngororero,Muhanga
2	Rehabilitation of Kigali - Gatuna paved road (78 Km).	Gicumbi
3	Rehabilitation of Gisiza - Pfunda paved road (48 Km).	Rubavu
4	Rehabilitation of Kigali - Musanze paved road (83.1 Km) and access road to Tumba College paved road (9km)	Gakenke,Musanze
5	Rehabilitation of Rubengera-Gisiza Road (25 Km)	Karongi/Rutsiro
6	Rehabilitation of Rusizi– Bugarama - Ruhwa Road (61Km)	Nyamasheke
7	Rehabilitation of Kitabi - Crete Congo Nil (32 Km)	Nyamasheke
8	Rehabilitation of Kigali – Muhanga – Huye - Akanyaru (157km)	Muhanga/Huye
9	Rehabilitation of Rusizi– Buhinga - Tyazo road (50.4Km)	Rusizi
10	Rehabilitation of Nyakinama – Musanze - Cyanika & Musanze - Rubavu paved road (102 Km)	Musanze
National Unpaved Roads		
11	Rehabilitation of damaged sections on Rugobagoba Kinazi Ruhango Gitwe Buhanda Kirinda Birambo Karongi (111km)	Karongi
12	Rehabilitation of damaged sections on Maya Rushaki Rwempasha-Kiyombe-Karama Buziba -Rwempasha Kizinga (83Km).	Gicumbi
13	Rehabilitation of damaged sections on Kitabi-Musebeya Gishyita, a road link Nyamagabe and Karongi District (83km)	Nyamagabe
14	Rehabilitation of damaged sections on Kirengeri -Buhanda - Kaduha- Musebeya road link Ruhango, Nyanza and Nyamagabe Districts	Nyamagabe
15	Rehabilitation of damaged sections on Gasaka -Manuari - Masizi Karongi is a road link Nyamagabe and Karongi including two bridges located on it	Nyamagabe/Karongi
16	Rehabilitation of damaged sections on Cyakabiri-Nyabikenke-Ndusu Road.	Muhanga
District Roads Class 1		
17	Rehabilitation of damaged sections on Kamuhanda-Musenyezi (6Km)	Kamonyi
18	Rehabilitation of damaged sections on Rugendabari-Kibangu-Muvumba (57Km)	Muhanga
19	Rehabilitation of damaged sections on Kibeho-Gorwe-Muganza kivu tea factory-Kivu (21Km)	Nyaruguru
20	Rehabilitation of damaged sections on Nshili TF-Remera (15Km)	Nyaruguru
21	Rehabilitation of damaged sections on Gasarenda-Musebeya (7Km)	Nyamagabe
22	Rehabilitation of damaged sections on Gatare-Kizimyamuriro-Nkomane (25Km)	Nyamagabe
23	Rehabilitation of damaged sections on Kitabi-Nshili TF (29Km)	Nyamagabe
24	Rehabilitation of damaged sections on KADUHA (KABARIZO)-MIKO (14Km)	Nyamagabe
25	Rehabilitation of damaged sections on GASARENDA-GAHIRA-GAKOMA (7Km)	Nyamagabe



26	Rehabilitation of damaged sections on Rutsiro - Kavumu- Gashyushya - Kazabe (53.8 Km)	Ngororero
27	Rehabilitation of damaged sections on Muhanda - Kavumu-Kabaya (28Km)	Ngororero
28	Rehabilitation of damaged sections on Kivumu – Kigeyo	Rutsiro
29	Rehabilitation of damaged sections on Rwankeri-Kintobo-Nyakiriba-Nyakinama (25Km)	Nyabihu
30	Rehabilitation of damaged sections on Ngororero-Nyabarongo-Vunga-Gashyushya (35Km)	Nyabihu
31	Rehabilitation of damaged sections on Nkuli- Kabashumba -Rurembo-Gifunzo ()	Nyabihu
32	Rehabilitation of damaged sections on Mahoko-Nyabirasi (43Km)	Rubavu
33	Rehabilitation of damaged sections on Kibangira-Gikundavura-Bweyeye (62.1 Km)	Rusizi
34	Rehabilitation of damaged sections on Kabuga-Bigutu-Cyamudongo-Nyakabuye-Butare (32.6Km)	Rusizi
35	Rehabilitation of damaged sections on Tyazo-Rangiro-Yove (26Km)	Nyamasheke
36	Rehabilitation of damaged sections on Ntendezi-Mwezi-Ruguti (20Km)	Nyamasheke
37	Rehabilitation of damaged sections on Mugonero-Cyarusine-Giti-Giko (DR Class 2, 36Km)	Nyamasheke
38	Rehabilitation of damaged sections on KIRYI-MUBUGA-KIRAMBO (18.5Km)	Burera
39	Rehabilitation of damaged sections on MUHABURA-GAHUNGA-MUBUGA (29.4)	Burera
40	Rehabilitation of damaged sections on Gitikinyoni-Ruli-Rushashi-Gakenke (63Km)	Gakenke
41	Rehabilitation of damaged sections on Kirenge-Muhondo-Rushashi (16.7Km)	Gakenke
42	Rehabilitation of damaged sections on Riziyeri-Rilima-Mwogo-Nyamata-Shyara (67km)	Bugesera
	Bridges	
43	Rehabilitation of Mwoga Bridge located on Nyamugali-Kamombo road (10m)	Ngoma
44	Rehabilitation of Mungoti on Kazabe – Kavumu road	Ngororero
45	Rehabilitation of Rutsiro on Kazabe – Kavumu road	Ngororero
46	Rehabilitation of Satinsyi bridge on Kazabe – Kavumu road (25m)	Ngororero
47	Rehabilitation of Muhanda Bridge	Ngororero
48	Rehabilitation of Kagogo bridge located on NR16 (25.5m)	Ngororero
49	Rehabilitation of Nanga bridge at Rwankeri-Kintobo-Nyakiriba-Nyakinama (6m)	Nyabihu
50	Rehabilitation of Ryinyo bridge (8m)	Nyabihu
51	Rehabilitation of Mpinga bridge: Nkuri-Rurembo-Gifunzo-Kirogotero (6m)	Nyabihu
52	Rehabilitation of Kaseke bridge (7m)	Nyabihu
53	Rehabilitation of Rwangurube bridge (7m)	Nyabihu
54	Rehabilitation of Kirogotero bridge (20m)	Nyabihu
55	Rehabilitation of Mubayo bridge 1 (7m)	Nyabihu



56	Rehabilitation of Kazirankara Bridge (6m)	Nyabihu
57	Rehabilitation of Ntosho-Guriro (8m)	Nyabihu
58	Rehabilitation of 4 Bridges on Guriro-Gasiza Road (6m each)	Nyabihu
59	Rehabilitation of 6 Bridges Nyamitanzi-Gisizi (6m each)	Nyabihu
60	Rehabilitation of Gitebe Bridge (20m)	Nyabihu
61	Rehabilitation of 1 Bridge on Mumuhanda-Gasiza- Birembo (6m)	Nyabihu
62	Rehabilitation of 1 bridge on Rwankeri-Kintobo-Nyakiriba-Nyakinama (8m)	Nyabihu
63	Rehabilitation of Kazihira Bridge (10m)	Nyabihu
64	Rehabilitation of Mubayo Bridge 2 (7m)	Nyabihu
65	Rehabilitation of 3 Bridges on Kazirankara-Nturo-Kaburamba Road (8m each)	Nyabihu
66	Rehabilitation of 5 Bridges on Dagaza-Kantine Road (6m each)	Nyabihu
67	Rehabilitation of Kaseke Bridge on Nkuri-Kirogotero Road (7m)	Nyabihu
68	Rehabilitation of Musekera Bridge on Nkuri-Kirogotero Road (10m)	Nyabihu
69	Rehabilitation of Nyakabungo/Kirogotero Bridge (12m)	Nyabihu
70	Rehabilitation of Rukarara bailey bridge Gasaka-Musange (39m)	Nyamagabe
71	Rehabilitation of Burakali bridge (10m)	Nyanza
72	Rehabilitation of Cyogo Bridge (50m)	Kamonyi
73	Rehabilitation of Kabingo Bridge	Muhanga
74	Rehabilitation of Bakokwe bridge	Muhanga
75	Rehabilitation of Gafunzo Bridge (20m)	Ruhango