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Report No: PAD00011

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROGRAM APPRAISAL DOCUMENT

ON A

PROPOSED GRANT

IN THE AMOUNT OF SDR 226 MILLION
(US$300 MILLION EQUIVALENT)

TO THE

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

FOR A

ETHIOPIA RURAL CONNECTIVITY FOR FOOD SECURITY PROGRAM

March 8, 2024

Transport Global Practice
Eastern and Southern Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective February 29, 2024)

Currency Unit =	Ethiopian Birr (ETB)
US$1 =	ETB 56.75
US$1 =	SDR 0.75

FISCAL YEAR
July 8 – July 7

Regional Vice President:	Victoria Kwakwa
Regional Director:	Wendy E. Hughes
Country Director:	Ousmane Dione
Practice Manager:	Karla Gonzalez Carvajal
Task Team Leaders:	Bezawit Tesfaye Fantta, Hayalsew Yilma, Alphonse Soh

ABBREVIATIONS AND ACRONYMS

ADT	Annual Daily Traffic
AGP	Agriculture Growth Program
ATI	Agricultural Transformation Institute
BoF	Bureau of Finance
CB	Capacity Building
DA	Designated Account
DC	Design Class
DLI	Disbursement Linked Indicator
DLR	Disbursement Linked Result
EFSRP	Ethiopian Food Systems Resilience Project
EFY	Ethiopian Financial Year
EIA	Environment Impact Assessment
E&S	Environment and Social
EMP	Environmental Management Plan
EPA	Environment Protection Authority
EPACC	Ethiopian Program of Adaptation to Climate Change
ERA	Ethiopian Roads Administration
ESIA	Environmental and Social Impact Assessment
ESMG	Environmental and Social Management Guideline
ESMP	Environmental and Social Management Plan
ETB	Ethiopian Birr
FM	Financial Management
FPCO	Federal Program Coordinating Office
GNI	Gross National Income
GoE	Government of Ethiopia
GRS	Grievance Redress Service
GTP	Growth and Transformation Plan
IFA	Integrated Fiduciary Assessment
IMT	Intermediate Mode of Transport
INT	Integrity Vice Presidency
IPF	Investment Project Financing
IRI	International Roughness Index
IVA	Independent Verification Agent
KPI	Key Performance Indicator
LLRP	Lowlands Livelihood Resilience Project
LVR	Low Volume Road
MAC	Minimum Access Condition
MoA	Ministry of Agriculture
MoF	Ministry of Finance
MoTL	Ministry of Transport and Logistics
M&E	Monitoring and Evaluation
MSEs	Micro and Small Enterprises

MTR	Midterm Review
MUI	Ministry of Urban and Infrastructure
NDC	National Determined Contribution
NGO	Non-Governmental Organization
NMIS	National Market Information Systems
NPV	Net Present Value
OD	Organization Development
PAP	Program Action Plan
PCDP	Pastoral Community Development Project
PCO	Program Coordination Office
PforR	Program for Results
PIM	Program Implementation Manual
QA	Quality Assurance
QAR	Quality Assurance Review
RADMS	Road Accident Data Management System
RAM	Road Asset Management
RAP	Resettlement Action Plan
RBOA	Regional Bureau of Agriculture
RC	Reinforced Concrete
RCAP	Rural Connectivity and Access Program
RRE	Regional Road Entities
RPCO	Regional Program Coordinating Office
RSDP	Road Sector Development Program
RSG	Resettlement System Guideline
RSIFS	Road Safety and Insurance Fund Service
SC	Steering Committee
SLMP	Sustainable Land Management Project
SORT	Systematic Operations Risk Rating
TC	Technical Committee
TOR	Terms of Reference
URRAP	Universal Rural Roads Access Program
VLDP	Voluntary Land Donation Protocol
WDC	Woreda Development Committee
WoF	Woreda of Finance
WRO	Woreda Road Office
WIDP	Woreda Integrated Development Plan

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DATASHEET

BASIC INFORMATION

Project Beneficiary(ies)	Operation Name		
Ethiopia	Ethiopia Rural Connectivity to Support Food Security Program		
Operation ID	Financing Instrument	Does this operation have an IPF component?	Environmental and Social Risk Classification (IPF Component)
P176303	Program-for-Results Financing (PforR)	Yes	Moderate

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[✓] Fragile State(s)
[ ] Contingent Emergency Response Component (CERC)	[ ] Fragile within a non-fragile Country
[ ] Small State(s)	[✓] Conflict
[ ] Alternative Procurement Arrangements (APA)	[ ] Responding to Natural or Man-made Disaster
[ ] Hands-on Expanded Implementation Support (HEIS)	

Expected Approval Date	Expected Closing Date
29-Mar-2024	31-Mar-2029
Bank/IFC Collaboration	
No	

Proposed Program Development Objective(s)

The PDOs is to enhance the climate resilient accessibility of target populations to food markets and services; and strengthen the institutional capacity for rural roads management

Organizations

Borrower:	Federal Republic of Ethiopia
Implementing Agency:	Agricultural Transformation Institute
Implementing Agency:	Ministry of Urban and Infrastructure

COST & FINANCING (US$, Millions)

Maximizing Finance for Development

Is this an MFD-Enabling Project (MFD-EP)? No

Is this project Private Capital Enabling (PCE)? Yes

SUMMARY

Government program Cost	**774.30**
Total Operation Cost	**407.30**
Total Program Cost	357.30
IPF Component	50.00
Total Financing	**407.30**
Financing Gap	**0.00**

Financing (US$, Millions)

World Bank Group Financing

International Development Association (IDA)	300.00
IDA Grant	300.00

Non-World Bank Group Financing

Counterpart Funding	107.30
National Government	107.30

IDA Resources (US$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
National Performance-Based Allocations (PBA)	0.00	300.00	0.00	0.00	300.00
Total	**0.00**	**300.00**	**0.00**	**0.00**	**300.00**

Expected Disbursements (US$, Millions)

WB Fiscal Year	2024	2025	2026	2027	2028	2029
Annual	0.00	62.50	70.00	70.00	60.00	37.50
Cumulative	0.00	62.50	132.50	202.50	262.50	300.00

PRACTICE AREA(S)

Practice Area (Lead)

Transport

Contributing Practice Areas

Agriculture and Food; Health, Nutrition & Population; Digital Development

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	High
2. Macroeconomic	High

3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Moderate
6. Fiduciary	High
7. Environment and Social	Substantial
8. Stakeholders	Substantial
9. Overall	Substantial

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

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Area OP 7.60	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	Not Currently Relevant

ESS 4: Community Health and Safety	Not Currently Relevant
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Not Currently Relevant
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Not Currently Relevant
ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
ESS 8: Cultural Heritage	Not Currently 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

Conditions

Type	Citation	Description	Financing Source
Effectiveness	Voluntary Land Donation Management Framework	The Recipient has developed and adopted a Voluntary Land Donation Management Framework in form and substance satisfactory to the Association	IBRD/IDA
Effectiveness	Project Implementation Manual	The Recipient has prepared and adopted a Project Implementation Manual in accordance with the provisions of Section I.B.3 of Schedule 2 to this Agreement	IBRD/IDA
Effectiveness	Independent Verification Agents	The Recipient has developed and adopted terms of reference for the appointment of	IBRD/IDA

		Independent Verification Agents in accordance with the provisions of Section I.A.2(c) of Schedule 2 to this Agreement	
Disbursement	Disbursements under Part 1 of the Project	No withdrawal shall be made unless and until the ATI has assigned an environmental and social focal person to be responsible for environmental and social aspects under Part 1 of the Project, and thereafter maintained such environmental and social focal person position throughout the implementation of activities under said Part 1 of the Project all in accordance with the provisions of the Environmental and Social Commitment Plan	IBRD/IDA
Disbursement	Disbursements under Part 2 of the Project	No withdrawal shall be made unless and until the MUI has assigned an environmental and social focal person to be responsible for environmental and social aspects under Part 2 of the Project, and thereafter maintained such environmental and social focal person position throughout the implementation of activities under said Part 2 of the Project all in accordance with the	IBRD/IDA

		provisions of the Environmental and Social Commitment Plan.	

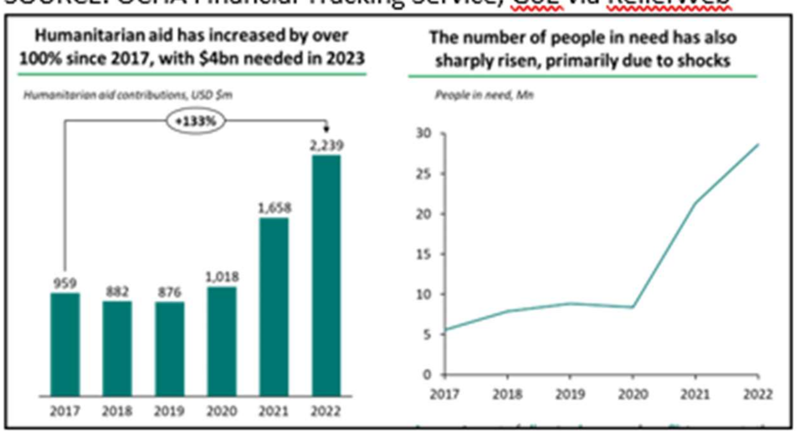
I. STRATEGIC CONTEXT

A. Country Context

1. **Ethiopia is the second most populous nation in Africa, and till recent times has been the fastest growing economy in the region**[1] Ethiopia is a large and diverse country, with an estimated population of over 123 million[2], out of which nearly 80 percent live in rural areas[3]. Ethiopia's economy has experienced strong, broad-based growth averaging 9.4 percent a year from 2010/11 to 2019/20 that has slightly lowered to 6.4 percent in FY2021/22. Nevertheless, much of Ethiopia's population remains vulnerable to food insecurity.

2. **Higher economic growth contributed to positive trends in poverty reduction**. The strong growth in the past decade has resulted in a dramatic increase in Gross National Income (GNI) per capita, from US$130 in 2004 to US$1,020 in 2022 and, in turn, the share of the population living below the national poverty line decreased from 30 percent in 2011 to 24 percent in 2016 (latest available data).[4] However, the growth distribution is uneven, widening the gap across households in rural and urban areas. Moreover, the potential of a return to increased poverty remains high, especially for those engaged in rain-fed small-scale agriculture. Despite the positive trends, Ethiopia remains among the 25 poorest countries in the world and rural livelihoods have become increasingly fragile as a result of climate change and increasing instability due to internal conflicts. Levels of food insecurity are rising (see Figure 1) with over 20 million people currently food insecure (of which 8 million are chronically food insecure). Levels of under-nutrition also remain high—the national prevalence of stunted, wasted, and underweight children under the age of 5 is 37, 10, and 22 percent, respectively (one of the highest rates of child malnutrition globally)[5].

Figure 1: Rising food insecurity in Ethiopia
SOURCE: OCHA Financial Tracking Service, GoE via ReliefWeb



3. **Agriculture remains an important source of growth and employment and a key determinant of food security.** The agricultural sector accounts for over a third of the Gross Domestic Product (GDP)[6] and agricultural production has been growing steadily in the past decade, declining slightly in 2021 due to the combined effects of COVID-19, internal conflict, and drought. Agriculture employs 64 percent of the labor force in Ethiopia[7] and the sector is the primary income source for much of the population. It is therefore critical for food and nutrition security both in terms of food supply and ensuring adequate incomes to access food. Nevertheless, the sector faces multiple constraints including connectivity, relatively low productivity, dependence on rainfed agriculture and high exposure to climate change, and weak farmer-market communications. Improving rural connectivity through both physical investment in roads and creating a digital e-market platform are

[1] The World Bank in Ethiopia, https://www.worldbank.org/en/country/ethiopia/overview
[2] United Nations. World Population Dashboard, Ethiopia. December 2023; https://www.unfpa.org/data/world-population/ET
[3] FAO 2021; https://www.fao.org/faostat/en/#country/238
[4] World Bank, Poverty & Equity Brief Ethiopia, April 2023; https://databankfiles.worldbank.org/public/ddpext_download/poverty/987B9C90-CB9F-4D93-AE8C-750588BF00QA/current/Global_POVEQ_ETH.pdf
[5] Ethiopian Public Health Institute (EPHI) and ICF. 2021. Ethiopia Mini Demographic and Health Survey 2019: Final Report. Rockville, Maryland, USA. EPHI and ICF. https://dhsprogram.com/pubs/pdf/FR363/FR363.pdf
[6] World Bank (2022): https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=ET
[7] ILOSTAT (2021) https://ilostat.ilo.org/data/country-profiles/

necessary to address these constraints, particularly farmer-market linkages that can provide significant incentives for farmers to increase production and improve the availability and flow of food across markets. Rural connectivity also influences the time and efficiency with which markets can be accessed by farmers. This, in turn, significantly reduces post-harvest losses, improves food availability, and increases rural incomes, while reducing greenhouse gas (GHG) emissions.

4. **Ethiopia's development strategy prioritizes rapid agricultural productivity gains and commercialization of smallholder agriculture** to drive food systems growth, enhance competitiveness of strategic agri-food value chains, catalyze efficient agricultural investment, and rebuild rural livelihoods. There is a strong push to increase food production and bring surpluses produced to markets. This would increase both availability and access to food; the two key elements of food security. Central to this endeavor, given the rugged terrain, is connecting rural households to markets through the provision of access to rural roads, crossing structures such as bridges of various types, and creating new digital solutions.

5. **While progress has been made on improving the main trunk and link road network, the rural roads at woreda[8] levels need significant improvement to ensure year-round access**. Enhancing the rural road network, including the provision of critical bridges, will support the full logistics chain serving the agriculture sector and will help to significantly reduce the costs of transportation. Rural roads that link to areas of high agricultural potential will be prioritized for financing in this operation. Additionally, investment in market services is essential to translate the physical linkages enabled by investments in rural roads into tangible market opportunities.

6. **As Ethiopia moves toward becoming a middle-income country, the transport sector will play a vital role in the country's economic and social development.** Roads are a critical lifeline for a country like Ethiopia that is landlocked. Centers of agricultural production especially, as well as manufacturing, and consumption all have to be connected to local, regional, and international markets across the logistics chain, making transport central to any development strategy. For farmers, low accessibility constrains the ability to get the best prices for their produce, increases the cost of transport of inputs, e.g., seeds, fertilizers, farm implements, and leads to unnecessary loss and wastage of produce.

B. Multi-Sectoral and Institutional Context

7. **Ethiopia is a country with a large land area and a diverse topography, with different climates across the country posing varied climate risks which can impact transport infrastructure and services, agricultural value chains and food security.** Temperatures have been increasing with higher rates of warming being observed in the central and highland areas. There is a strong regional variability in rainfall and significant inter-decadal and year-to-year volatility. Ethiopia has a high risk of hydrometeorological hazards and natural disasters. Flash floods and riverine floods regularly cause damage to crops, markets and transport infrastructure. Poorly maintained transport infrastructure is particularly vulnerable to climate hazards. Climate projections show a continued increase in temperature and increased rainfall variability. Land degradation and soil erosion are expected to be exacerbated by recurrent floods, droughts, and water scarcity in some areas of the country. The variability of rainfall patterns and the resulting natural hazards such as floods are expected to impact connectivity, disrupting access to markets as well as basic social services in rural communities. All these factors impact food value chains, which adds to the risk of food insecurity.

8. **An impact evaluation study conducted by the World Bank estimated that rural roads developed under the Government of Ethiopia (GoE)'s Road Sector Development Program (RSDP) increased household welfare by 23 percent between 2012 and 2016**. Moreover, households were less likely to fall into, or remain in, poverty when connected by rural roads in drought areas, indicating the role of rural roads in strengthening resilience to drought shocks. The analysis also found that rural roads development has affected agricultural and non-agricultural work. More farmers have come to sell their crops once connected to rural roads. More households—particularly women and youth—have engaged in wage jobs in remote communities. By connecting to markets, rural roads have widened the economic base in otherwise physically and economically isolated communities. In addition, the study pointed out major challenges facing the existing rural road

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[8] "Woreda" is the lowest level of elected government in Ethiopia.

network including: (i) the lack of regular maintenance, (ii) missing bridges (e.g., 1200 bridges for 20 percent of the rural network), (iii) the lack of careful planning and prioritization of network expansions, and (iv) the need for continued institutional strengthening and capacity building.

9. **Nearly 80 percent of the Ethiopian population live in rural areas where significant road network improvements have been registered since 2011; however, rural connectivity remains relatively low**. Rural road coverage saw an increase of 152 percent from 1997/98 to 2009/10 prior to the initiation of the Universal Rural Roads Access Program (URRAP). After the end of the first URRAP in 2015, there was a more significant expansion by 580 percent from the baseline in 1997/98. By 2021/22, the length of rural roads reached 102,269 km, up from 10,680 km in 1997/98. On average, the distance to the nearest all-weather road is 4.4 km, with an average travel time of 1 hour and 26 minutes. Despite this progress, some production areas remain poorly connected to markets and gaps are still identified in a benchmarking study of road density[9]. The road density per 1000 sq. km in Ethiopia is 130.9 km, much lower than Africa's average of 204 km, and slightly lower than the Sub-Saharan country average of 140 km. This operation will address these gaps by investing in the construction and upgrading of rural roads and investing in digital solutions to link farmers to markets.

10. **The Government of Ethiopia (GoE) initiated a comprehensive Homegrown Economic Reform Agenda (HGERA) in September 2019 building upon the foundation established under its second Growth and Transformation Plan 2015/16 to 2019/20 (GTP II).** The HGERA aims to create an economic environment supportive of higher private investment and structural transformation towards accelerated growth, and overall food and nutrition security**.** Amongst the key set of reforms under HGERA, the government proposed to improve the country's stock of transport infrastructure with ambitious goals of increasing coverage, quality, safety, resilience, and efficiency. In addition, sectoral reforms in agriculture are aimed inter alia at enhancing effective linkages between agriculture producers and commodity markets, thereby promoting commercialization of food systems.

11. **The budget allocation for the construction and maintenance of rural roads under GTP II was insufficient, which was attributed to the absence of a well-defined and sustainable road fund, particularly at the lower levels**. Funding for rural roads came from a mix of sources, including federal funds subject to availability, allocations from Regional Road Entities, and contributions from rural communities, both in-kind and monetary. However, this method of funding was piecemeal and unsustainable, leading to budget constraints and the prolonged exclusion of certain regions from the program. Over the last 23 years, a total of ETB 70,031.4 million was earmarked for Woreda road upgrading/construction, with ETB 41,268.4 million (59 percent) being specifically allocated to URRAP roads. In the same timeframe, out of the ETB 3,482.0 million budgeted for Woreda road maintenance, only 19 percent was disbursed. This meager allocation for maintenance has led to the rapid degradation of Woreda roads, as they receive insufficient attention and resources for their proper upkeep. This operation aims to close these gaps by utilizing a separate and targeted disbursement linked indicator (DLI) for rural road maintenance.

12. **GoE has prepared a** Transport Sector's 10-year perspective development plan **which was officially launched in 2021.** Its main objective is to enhance the accessibility of target populations served by roads to markets and services and strengthen the institutional capabilities of the road sector to deliver and maintain roads in a safe and satisfactory condition. Targets are set for transport infrastructure, transport services, safety, logistics, environmental climate changes, implementation, and capacity building initiatives.

13. **Improving rural communities' accessibility to agricultural inputs and market opportunities is critical for physically connecting both producers and consumers to markets.** While food security depends on many factors, this operation is prioritizing accessibility of potentially high food production areas to markets. This catalyzes increased agricultural production and contributes to reduced post-harvest losses thus improving availability of food and improving

[9] International Benchmarking of South Africa's Infrastructure Performance: Infrastructure Development in Sub-Saharan Africa: A Scorecard: Affric IRF World Road Statistics 2019, latest year of available data for countries a's Infrastructure, A Time for Transformation: The Global Competitiveness Report (2017/18)

the flow of food from surplus production to food deficit areas, improving overall access to food. The selection criteria developed under this operation will ensure targeting of food producing areas and complementarity with other World Bank-funded projects aimed at increased agricultural production, agricultural market development, and overall resilience strengthening of the food chain systems (both crops and livestock). This would allow greater integration of road accessibility and agriculture growth.

14. The following agencies have responsibility across the road classification profiles: Ministry of Urban and Infrastructure (MUI) is responsible for road sectoral policy, and oversight; Ethiopian Roads Administration (ERA) oversees the federal link roads and expressways; the Regional Road Entities (RRE)[10] oversee regional roads, while Woreda Road Offices (WRO) have responsibilities over woreda roads. Urban roads are managed by the relevant urban authorities. However, there has been a continuous overlap in responsibilities and interventions given overlapping mandates, lack of capacity at the lower levels, and a bucket of financing sources that employ different implementation modalities. Results of an ERA modernization report shows that there are critical problems with the arrangements and performance of the existing organizational structure of RRE. Poorly defined departmental roles and communication with stakeholders lead to confusion and inconsistent understanding of policies and operational plans within RRE. The operation aims to streamline sector responsibilities and bolster institutional capacity at all levels.

15. Like many other low- and middle-income countries, Ethiopia has failed to achieve the United Nations (UN) Decade of Action 2011–2020 target of reducing road deaths by 50 percent; however, the second UN Decade of Actions for Road Safety 2021–2030 provides the opportunity to act and commit to reducing road traffic deaths and injuries by at least 50 percent from 2021 to 2030.[11] Vulnerable road users (pedestrians, cyclists, people with disabilities, or the elderly) represent most fatalities, at 45 percent compared to other road users, and 60 percent of crashes affect the most productive age group (15 - 64 years) with a 2:1 ratio of male to female fatalities. Road safety remains a key concern for the sector as the country is losing an estimated 21,258 lives on the road each year, with 18 deaths per 100,000 people as of 2021, significantly impacting GDP[12]. This figure is slightly below the Sub-Saharan Africa average of 19 but much higher than the global average of 15. The cost of road crashes is estimated at US$6,516 million, equivalent to 8.8 percent of the country's GDP.[13]

16. To achieve the target of reducing road traffic fatalities by 50 percent by 2030, Ethiopia launched a National Road Safety Strategy in 2022. This strategy demonstrates the government's commitment to reducing road crashes. Road safety is considered vital in the Transport Sector's 10-year perspective development plan. It is one of the six core objectives of the transport sector, with a dedicated target of fatality reduction. To improve vulnerable road users' safety and promote active transportation, Ethiopia adopted a Non-Motorized Transport Strategy (2020-2029). It is essential to ensure safer roadways to prevent a significant increase in crash fatalities and injuries due to increased speed and other risks on the road.

17. There **is a clear gender employment gap in Ethiopia, especially in the transport sector.** According to a World Bank study, women are 17 percent less likely than men to participate in the national labor force. [14] This disparity widens to 29 percent when considering other factors such as age, education, and household wealth. In addition, women occupy a much smaller share of technical positions in the formal wage sector, where women account for only 30 percent of the professional workforce. In addition, of the people employed in the transport and communication sector, women represent 10 percent, while they represent 12 percent of the people employed in construction. According to the Labor Proclamation No. 1156/2019, it is prohibited to assign women on works that may be listed by the government to be particularly

[10] Regional Road Entities have various names across regions, such as Road and Logistics Bureau, Transport and Road Development Bureau, Road Bureau, Regional Road and Transport Bureaus, Regional Bureaus of Transport, and Regional Road Bureaus, among others.
[11] United Nations (2020). General Assembly. Seventy-fourth session Agenda item 12 Improving global road safety. https://undocs.org/en/A/RES/74/299.
[12] WHO Global Status Report on Road Safety 2023
[13] Global Road Safety Facility; Road Safety Country Profile; https://www.roadsafetyfacility.org/country/ethiopia
[14] World Bank. 2019. Ethiopia Gender Diagnostic Report: Priorities for Promoting Equity. World Bank, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/31420 License: CC BY 3.0 IGO."

dangerous to women or hazardous to their health. Barriers to participation include but are not limited to lack of skills, gender stereotypes, lack of gender sensitive recruitment practices, and absence of mechanisms to prevent and respond to sexual harassment.

18. **Women face restrictions to improved productivity in agriculture and better access to trade**. Women make up more than 40 percent of the agricultural labor force and head approximately 25 percent of all farming households; however, they face acute challenges to improve their productivity, and they have less access to land and other factors of production than men.[15] Women also experience lower returns than men from a given level of resource expenditure. These lower returns relate to elements such as social norms, market failures, and institutional constraints that prevent resources from turning into the same levels of agricultural productivity as they would for men, translating into an agricultural productivity gender gap of 36 percent .[16] Women traders and entrepreneurs have less access to information and credit which leads to men being more actively involved in wholesale and large-scale and agro-processed foods trading, while women participate more in retail and small-scale food processing and marketing in towns and rural areas.[17] In addition, women's low participation in vegetable wholesale and trade is linked to having to travel long distances from production areas to central markets, dealing with transporters, brokers, and buyers.[18]

C. Relationship to the CPF and Rationale for Use of Instrument

19. **The operation will be financed through a Program-for-Results (PforR) instrument with an Investment Project Financing (IPF) component.[19] In general, the PforR will focus on the transport sector and roads portion of the operation (US$250 million), while the IPF component will focus on strengthening digital agricultural markets and capacity building (US$50 million).** The PforR financing is suitable given that: (i) the Program will support an existing government program in infrastructure; (ii) the instrument allows flexibility for advancing delivery while ensuring compliance with country systems for fiduciary and environment and social standards requirements using disbursement linked indicators, and Program Action Plan; (iii) the instrument builds government capacity to deliver and sustain its infrastructure at all levels (from federal to regional to woreda levels) without the need for oversight at the transaction level and also helps improve corporate governance, autonomy, and accountability; and (iv) the rural roads program entails multiple dispersed subprojects for which the use of an IPF would entail high transaction costs for both the World Bank and the Government.

20. **The PforR financing instrument will support the Transport Sector's 10-year perspective development plan in general, and the Rural Connectivity and Access Program (RCAP) in particular.** Through a long-term partnership, the World Bank has supported the road sector in Ethiopia with time-tested strengthening of technical, fiduciary, and environment and social capacities. Previous operations have used IPF financing with a focus on the oversight of specific investments, given the initial nascent capacity and the need to ensure compliance with fiduciary and environment and social requirements. The capacity of ERA has improved dramatically and its ability to deliver its road sector program following the existing systems is at a level that justifies a transition towards a result-based engagement. Since the rural roads and bridges targeted for intervention are at the lower functional classification levels under the RREs and woredas, the Program envisages the active participation of MUI and ERA as oversight and technical support entities to ensure Program results are achieved in a satisfactory manner. results are achieved in a satisfactory manner.

21. **The IPF component of the operation (project) will strengthen digital agricultural markets and capacity building** focusing on piloting E-market platforms and on capacity building at the federal, regional, and woreda levels. The project will have two windows. The first window will test innovative approaches to strengthen linkages between suppliers and

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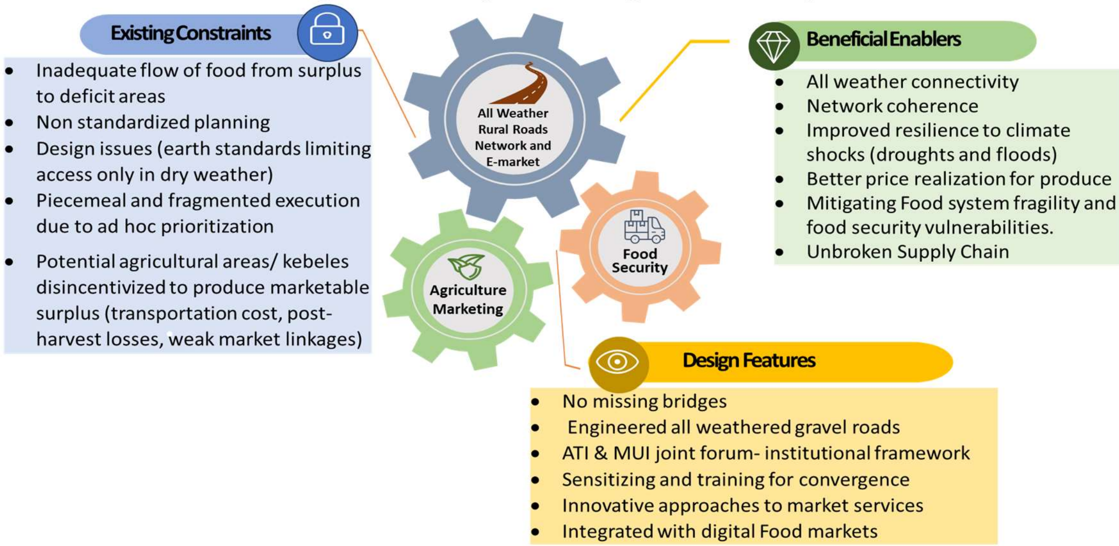
15 World Bank. (2019). Op. cit.
16 The World Bank. "Leveling the Field: Improving Opportunities for Women Farmers in Africa." Washington, DC: World Bank cited *Loc. cit.* 2014.
17 FAO. (2019). Ethiopia. Country Gender Assessment Series. National Gender Profile of Agriculture and Rural Livelihoods. Addis Ababa: FAO.
18 Op. cit.
19 The overall Word Bank project will be referred to as the "Operation" unless specified otherwise. Where necessary, the IPF component will be referred to as the "Project" and the PforR element will be referred to as the "Program."

buyers through a digital market platform. The second window will enable the Ministry of Urban and Infrastructure (MUI) and the Agricultural Transformation Institute (ATI) to manage and coordinate the overall operation and to provide capacity and technical assistance support to the regions and woredas during implementation.

22. **The Program and project are inherently interconnected within the overall operation, and their complementarity will help achieve optimal gains in improved access and connectivity to support food security**. An evaluation study which was conducted on the impact of URRAP and agricultural extension programs in Ethiopia identified significant gaps in the lack of coordination across the programs, including the **absence** of a clear prioritization mechanism which resulted in a reduction in efficacy and productivity. The Program aims to address these gaps and maximize benefits through measures such as: (i) designing selection criteria for prioritizing rural roads within the PforR to incorporate parameters such as the potential for agriculture production and surplus-producing Kebeles; and (ii) establishing a Joint Consultative Forum and a National Steering Committee comprising members from MUI, ATI, and other relevant ministries, offices and entities to ensure coordination, synergy, and integration of the operational activities. The overall interconnection within the operation is depicted in Figure 2.

Figure 2: Transforming Rural Roads as Agriculture Connectivity Infrastructure



23. **The operation is aligned with the World Bank Group's Country Partnership Framework for Ethiopia (FY18-22) (Report No. 119576)**[20] **and supports the World Bank's mission to end extreme poverty and boost shared prosperity on a livable planet.** The operation contributes to the achievement of outcomes under two of the three CPF's focus areas: Focus area 2: Building resilience and inclusiveness which aims on to improve spatial connectivity for equitable growth by connecting production centers to markets and connecting secondary cities. Further, the operation's focus on strengthening agricultural productivity aligns with Focus area 1: Promoting structural and economic transformation through increased productivity by improving food producers' access to food markets and reducing post-production losses. The operation complements other World Bank investments, particularly the Ethiopia Food Systems Resilience Project (EFSRP) (P176167)- by linking EFSRP investments more closely with roads. The operation's interventions align with the Government of Ethiopia's Agricultural Sector Perspective Plan (2020-2030) and Revised Agricultural and Rural Development Policy, which prioritize food security and farmers' market engagement. Through these complementary efforts and policy alignments, the operation aims to support a more resilient and market-oriented food system in Ethiopia.

[20] A new CPF is under preparation which builds upon these strategic objectives and focus areas.

24. **The operation is consistent with Ethiopia's Nationally Determined Contribution to the UNFCCC (UN Framework Convention on Climate Change),**[21] **Ethiopia's National Adaptation Plan (NAP)**[22]**, Ethiopia's Long-term Low Emission and Climate Resilient Development Strategy (2020-2050) (LTS), and the Ethiopian Program of Adaptation to Climate Change (EPACC).** The NAP and the EPACC indicate that transport is one of the most vulnerable sectors to climate shocks in Ethiopia, identifying potential impacts related to damaged roads, bridges, and other transport infrastructure, and emphasizing the need to protect and improve the lifespan of transport infrastructure. The LTS concludes that Ethiopia's GHG emissions are on the rise with the agriculture sector generating the highest emissions, contributing to about half of total national emissions in 2020. The program enhances climate resilience of rural transport, agriculture value chains and the communities served. The program invests in upgrading and constructing rural roads, bridges, and special structures to climate resilient standards, as well as enhancing adaptive institutional capacity through improved rural road asset management systems, rural road and bridges maintenance practices, deployment of an e-platform to improve food flows from high food production to deficit areas, reducing food losses and improving food security in the face of climate change. The program also contributes to the reduction of GHG emissions from the agriculture sector through reduction in food losses and food waste.

25. **The operation is aligned with the World Bank's Next Generation Africa Climate Business Plan**[23] **and with the World Bank's Climate and Development Report (CCDR).** The CCDR defines as a priority upgrading and building new infrastructure that can withstand climate shocks to close the infrastructure deficit and meet Ethiopia's development aspirations since some of the largest climate impacts will be in the form of damage to infrastructure assets. The CCDR identified that the backlog of maintenance of roads and bridges is making transport infrastructure vulnerable to climate risks. While investments have been made to develop and deploy a transport asset management system, climate risks and resilience considerations still need to be incorporated into the asset management process from planning, design, construction, maintenance and emergency response and repair. The project will integrate climate risks and resilience considerations in the rural road asset management system and provide training to build institutional capacity and in this way inform transport planning and investment prioritization and programming for maintenance, rehabilitation, upgrading and construction of infrastructure.

II. PROGRAM DESCRIPTION

A. Government Program

26. **The Transport Sector 10-Year Perspective Development Plan (2021 – 2030), launched by the GoE in early 2021,** identifies focus areas and six goals as follows: Goal 1, Ensuring the fairness and accessibility of the transport infrastructure; Goal 2, Making the transport service integrated, fair and accessible; Goal 3, Creating a safe transport service; Goal 4, Making the logistics service efficient and reliable; Goal 5, Creating a climate resilient transport infrastructure and services; and Goal 6, Increasing the efficiency of the sector by building implementation and enforcement capacity. The 10-year plan comprises rehabilitation and upgrading of existing roads, including rural roads and heavy maintenance of roads.

[21] Ethiopia's Nationally Determined Contribution to the UNFCCC, 2016. (URL: INDC-Ethiopia-100615 (unfccc.int))

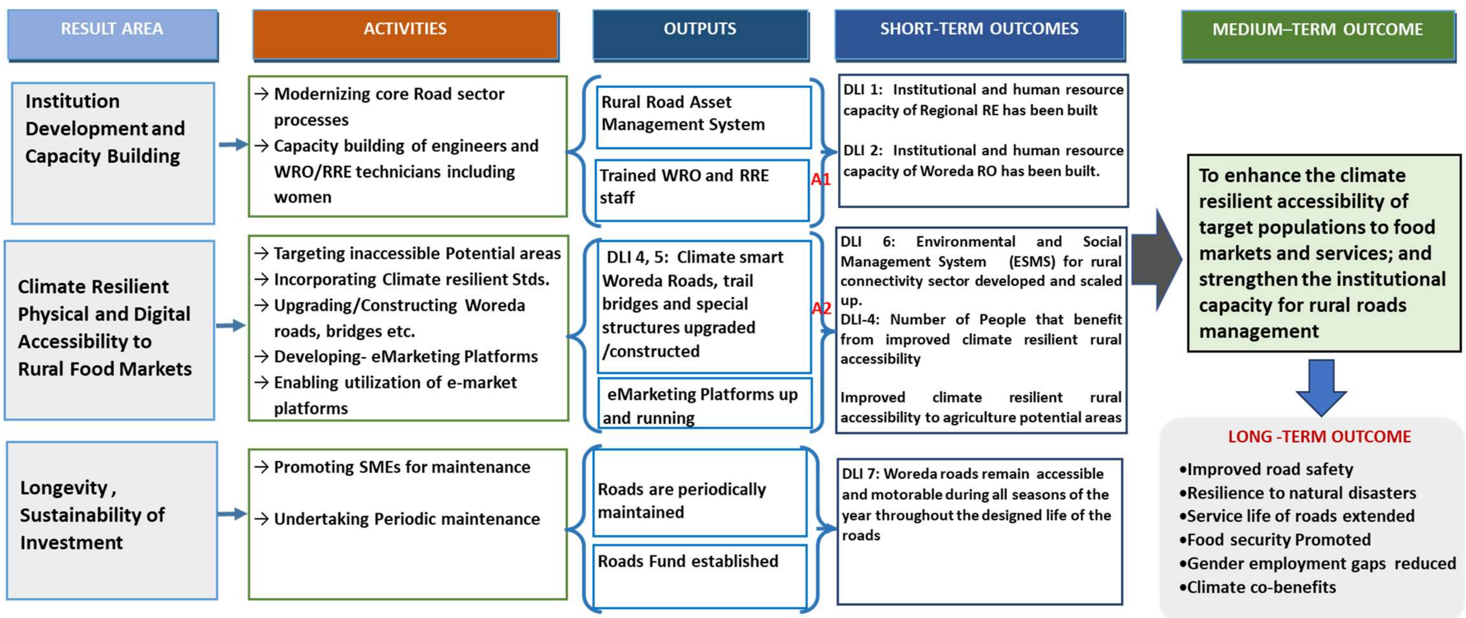
[22] Ethiopia's National Adaptation Plan; Federal Democratic Republic of Ethiopia; 2019. (URL: https://www4.unfccc.int/sites/NAPC/Documents/Parties/NAP-ETH%20FINAL%20VERSION%20%20Mar%202019.pdf)

[23] World Bank 2020: Next Generation Africa Climate Business Plan – Ramping Up Development Centered Climate Action. World Bank, Washington DC. (URL: Reports (worldbank.org))

B. Theory of Change

27. **The successful delivery of the operation's outputs will contribute to the expected medium and long-term development impacts.** These outputs include enhancements in the capacities of the RRE and WRO, along with improvements in physical and digital access to rural food markets. Such outputs are expected to lead to the project's desired medium-term outcomes, which encompass improved climate-resilient access to food markets and services, strengthened institutional capacity for rural roads management, and long-term outcomes that include: enhanced road safety, increased resilience to natural disasters, extended service life of roads, promotion of food security, narrowed gender disparities, and climate-related co-benefits. Figure 3 illustrates the theory of change.

Figure 3: Theory of Change Progression



Key Assumptions: (a) shared understanding and close collaboration among federal, regional, and woreda road sector entities, and steering committee; and (b) rural roads selection criteria are maintained.

C. The Operation Scope

PforR
Improving Physical Rural Connectivity (US$250 million)

28. **The PforR will contribute to the implementation of the RCAP, which is part of the GoE's Transport Sector's 10-year perspective development plan (an updated version of the previous URRAP).** URRAP was one of the primary road sector programs with important goals implemented in Growth and Transformation Plans, GTP I and GTP II. With this road development program, it was possible to significantly improve the road sector performance both in terms of coverage and quality. Its implementation led to the construction of more than 50 thousand km of all-weather roads. Moreover, the program created opportunities for technology transfer, jobs creation and impetus in other sectors, especially in agriculture, manufacturing, and business formation.

29. **However, the goal of linking every rural community to a main road has not yet been fully realised.** Road connectivity year-round plays an important role in rural communities by improving accessibility to basic social services and

economic opportunities, and in this way can contribute to reducing poverty and enhancing social inclusiveness / social cohesion / social wellbeing of those rural communities. The achievement of this goal is a key reason the Government has launched this successor program of RCAP.

30. **RCAP will not only help rural community connectivity and accessibility to basic social services but will also play a critical role in the economic recovery.** In addition to the agriculture, education, and health sector benefits, the program will help contribute to the economic recovery, and post-COVID response by providing employment opportunities not only for men, as is traditionally done, but also youth and women. The program will create conditions for cost savings, streamline investment and maintenance, create integrated procedures, and foster the coordinated organization and delivery of safe and climate-resilient rural roads. This will in turn reduce wastage of scarce government resources by coordinating and bringing small rural roads development programs that were run in the past by various ministry departments under a single national standard. Reviews of past program implementation and the national vision for the coming ten years, as well as domestic and foreign experiences regarding accessibility of rural communities, were utilized as input for designing the RCAP.

31. **The PforR will contribute to all six transport perspective goals with special focus on goals 1, 3, 5, and 6 and will only address the road subsector**. It will aim at supporting the Government's Transport Sector's 10-year perspective development plan toward promoting accessibility (Goal 1) in a sustainable, safe (Goal 3), and climate resilient (Goal 5) manner, and strengthen the government's capacity in all these areas (Goal 6).

32. **The program's main objective is to interconnect rural communities as well as isolated areas during all seasons and weather, and to improve rural living standards by increasing access to markets, and social and economic services**. In order to achieve this objective, the following sub-objectives are included: (i) link rural community centers to the nearest main roads to interconnect villages and areas with economic and social potential; (ii) connect rural areas that have become isolated due to geographic reasons or climate impacts; (iii) solve crossing problems in lowland areas that are regularly affected by climate impacts, and (iv) strengthen policy, institutional, and strategic frameworks that support the provision of climate resilient rural roads, including strengthening rural road maintenance management.

33. **In addition to the above overarching objectives, the program aims at contributing to other cross-cutting objectives.** These include improving road safety, building resilience of the rural road network and of the communities served to natural disasters and climate change impacts, mainstreaming gender, extending the service life of the rural road assets through best practice asset management practices and sustained maintenance, and deepening institutional reforms in the rural roads sector.

34. **The scope of the Program encompasses the following elements:** (i) upgrading/construction and maintenance of rural roads to climate resilient standards to connect rural kebele centers to the nearest main roads connecting agriculture potential areas; (ii) construction of pedestrian suspension crossings (trail bridges) for areas with lack of access because of topography; (iii) construction of special structures (pipe culverts, box culverts, bridges, etc.) for lowland and pastoralist communities with crossing problems due to seasonal floods; (iv) improving the strategies and practices for planning, implementation and management of regional and woreda roads incorporating climate risks and resilience considerations; (v) strengthening rural road asset management systems incorporating climate risks considerations; (vi) enhancing road safety on rural roads with particular consideration to vulnerable road users, including pedestrians and 2/3-wheelers, and (vii) institutional development activities including systems improvement. The rural roads to be financed under the Program will connect agriculture potential areas to markets.

35. **The total estimated cost of the RCAP is US$774.3 million, of which the World Bank will finance US$250 million with the balance coming from the Ministry of Finance Treasury allocations, regional and woreda contributions, and possibly other development partners (yet to be identified).** The PforR operation will cover a period of five years to improve rural road network connectivity, access, safety, climate resilience, and quality of the rural road network. It will provide a better access for farm-based communities, rural villages, and pastoralist communities to all weather roads that reach market centers and different social and economic centers.

36. The scope of the government RCAP and the scope of the PforR Program are presented in Table 2 below.

Table 2: Government RCAP and PforR Scope

	Government RCAP	**PforR (IDA financing)**	**Reasons for non-alignment**
Objective	To interconnect rural communities as well as isolated areas to improve rural living standards by increasing accessibility to social and economic services	To enhance climate resilience accessibility of target populations to food markets and services	Objectives are aligned but formulations are different. Discussions during project preparation led to the adoption of the same objective.
Duration	*2020-2030*	*2024-2029*	*Finances Phase 1 of the Program (2024-2029)*
Geographic coverage	*All the country*	*Priority engagement is based on selection criteria*	*Priority engagement for the World Bank resources not sufficient to cover the whole country*
Overall Financing	US$774.3 million	US$250 million	*It is a large national rural road program. In addition to World Bank financing, Ministry of Finance Treasury allocations, regional and woreda contributions, and possibly other development partners (yet to be identified) will participate.*

37. Financing Plan. The operation will be financed by an IDA grant in the amount of US$300 million (US$250 million for the PforR and US$50 million for the IPF component) along with counterpart funds from the Government amounting to US$107 million which are to be contributed by regional governments as matching funds. This total program financing plan of US$407 million will cover 52.6 percent of Government's RCAP of US$774.3 million.

Table 3. Operation Financing

Source	**Amount (US$, million)**	**% of Total**
Counterpart Funding	**107.00**	**26.29**
Borrower/Recipient	107.00	26.29
International Development Association (IDA)	**300.00**	**73.71**
PforR financing	250.00	61.42
IPF financing	50.00	12.29
IDA Grant	300.00	73.71
Total Program Financing	**407.00**	**100**

IPF Windows

38. The Investment Project Financing (IPF) will consist of two windows.

Window 1: Piloting an E-market Platform (US$17.5 million)

39. This window will complement the PforR financing to improve physical access to markets with digital solutions to further strengthen linkages between related market actors. Towards this end, window 1 of the IPF component will develop a comprehensive digital market platform that expands on current initiatives that are limited to dissemination of market information—by including information on agricultural inputs and on climate related market risks, and response and recovery frameworks, tracing the flow of both agricultural outputs and inputs as well as providing a platform to link farmers and small traders directly with buyers and to promote modern contract farming management—serving as a virtual market.

40. **Window 1 will have four components: (a) development of a digital market platform to link buyers directly to farmers and traders, (b) design and development of an agricultural output tracking system, (c) design and development of a contract farming management system, and (d) testing public-private partnerships for management of the platform.** The major activities include: (a) design and development of a digital market linkage platform for agricultural inputs and output as well as its operationalization through various means including data collection, training, system deployment and digital kiosks; (b) design, development, and implementation of digital tracking system for agricultural output; (c) review of the existing contract farming management ecosystem and development of a workable digital solution; and (d) dissemination of tailored market information by creating comprehensive farmer profiles.

Window 2: Capacity Building for Federal, Regional and Woreda Implementing Agencies and Support for Management of the Operation (US$32.5 million)

41. **This window will enable the Ministry of Urban and Infrastructure (MUI) to manage and coordinate the operation and to provide support to the regions and woredas in the implementation of the operation.** It will provide funding for staff and associated costs for the Federal Project Coordinating Office (FPCO) as well as Regional Project Coordinating Offices (RPCO) based in the 13 regions of the country. It will also fund institutional and capacity development interventions, as well as road safety and gender interventions.

D. Program Development Objectives (PDO) and PDO Level Results Indicators

42. **The Program Development Objective (PDO)** is to enhance the climate resilient accessibility of target populations to food markets and services; and strengthen the institutional capacity for rural roads management.

43. **The PDO indicators are:**

- Improved climate resilient and all-season connectivity assets constructed and operationalized: (a) Upgraded Rural Road Assets (Kilometer); (b) New Trail Bridge Assets (Number); and (c) New Special Structures (Number).
- Rural population that benefits from improved access to sustainable transport infrastructure and services (Number, of which female).
- Enhanced readiness of Regional Roads Entities for initiating program implementation complying with minimum eligibility conditions (Number).

44. **The operation is anchored around three sets of key results areas converging the PforR and the IPF:** (i) Institutional development and capacity building; (ii) Climate resilient rural accessibility; and (iii) Longevity and sustainability of investment. The investments under the IPF will strengthen food and agriculture markets and institutional capacity.

E. Disbursement Linked Indicators and Verification Protocols

45. **Type of indicators***.* The DLIs selected for the Program are mainly outcome level indicators but include some essential output indicators considering the infrastructure nature of the operation. The outputs involve km of roads and bridges that are constructed to climate resilient standards, implementation of rural road maintenance reducing vulnerability to climate risks and ensuring sustainable rural road assets and year-round connectivity. The outcome indicators measure improvements in beneficiaries accessing connectivity infrastructure and institutional strengthening aspects. Table 4 below summarizes the scope of the DLIs by results area and amounts to be disbursed.

46. **Disbursements under the Program will be triggered by the achievement of key results or disbursement linked indicators contributing to the PDO**. Key considerations in DLI selection are: (i) signaling and monitoring critical milestones as well as outcomes for the achievement of the PDO; (ii) providing incentives to reward performance by ensuring transparency and economic efficiency; and (iii) addressing specific risks or constraints to achieving the results, including long-term sustainability of the Program and monitoring and evaluation. All contracts will be implemented in accordance with the country systems and processes, and will ensure after the technical, fiduciary and environment and social assessments that shortcomings are bridged through DLIs or Program Action Plans (PAP). An independent verification agent (IVA)[24] will be contracted by MUI based on terms of reference to be developed and adopted by the recipient before effectiveness and agreed with the World Bank (as included in the Project Implementation Manual (PIM) to be prepared and adopted by the recipient before effectiveness). The IVA will verify the results achieved on all the DLIs and will produce an assessment report that will be submitted simultaneously to MUI and the World Bank. The World Bank will conduct a Quality Assurance Review and share its findings with MUI. The Technical Committee and Steering Committee established by the Government as per the PIM will respectively review and approve the results verified by the IVA. MUI will submit the approved results together with a disbursement request for review by the World Bank which will retain the right to make final decision on whether a DLI has been achieved or not.

Table 4. Disbursement Linked Indicators

Results area	DLIs	Amount (US$ million)	PforR (%)
1. Institution Development and Capacity Building	**DLI-1: Enhanced Readiness of Regional Road Entities for initiating Program implementation (Number)** This DLI is non-scalable and will be met when participating Regional Road Entities achieve all five **minimum eligibility conditions** during the first year of the Program which are: (i) RRE has the Annual Budget for the Current Year (2024-25) (EFY 2017) with clear Matching Fund allocations for rural roads approved by the Regional Government; (ii) All staff in critical positions in place including Management Head/ Deputy, Technical staff, Finance Specialist, Procurement Specialist, environment and social (E&S) Safeguards Specialist, and Monitoring Specialist. (iii) The Regional Road Entities have assigned procurement staff- (with required qualifications, experience in works procurement) and prepared procurement plans, bidding documents including designs, posted open advertisement for all eligible national bidders, conducted bid evaluations based on standard templates and signed contracts with all procurement steps appropriately recorded; (iv) Established a functional Environmental and Social Management System with adequate documentation and reporting. DLI1 will be assessed annually during all Program years, but payment will be affected only during the Program's first year. During subsequent years the Minimum Access Conditions (MACs) will be complied with by the Regions to be eligible to get assessed for other regional DLIs. RREs will meet DLI1 each subsequent year to be eligible for DLIs 2 to 7.	62.5	25

[24] The first-year assessment of DLI 1 (the MACs) will be undertaken by MUI Department/Unit which is not Involved in Program operations, acceptable to the World Bank. The assessment of compliance during the subsequent years will be done as part of the Annual Performance Assessment by IVA.

Results area	DLIs	Amount (US$ million)	PforR (%)
	DLI-2: Institutional strengthening of Woreda Roads Offices enhanced for implementing the Program (Number) The DLI is scalable and will be achieved when all the Woreda Road Offices under each RRE acquire and maintain the institutional capacity to perform their mandated technical facilitation roles in rural connectivity. The MAC will remain as a precondition for assessing achievements under this DLI throughout the Program period. RREs will develop and implement an annual Institution Development Plan (IDP), based on an internal assessment to enhance WROs' capacity on key thematic areas. The support areas include those demanded by the WROs and supply side priorities as decided by RREs. The support to the WRO includes provision of manuals, provision for system improvements, specific TA/mentoring support etc., while not duplicating the activities already covered under the IPF component. The steps in carrying out the capacity assessment, format for IDP, broader thematic areas of support, and format for reporting programs etc. are elaborated in the PIM. The prior result included in the DLI is Selection of Woredas by the Regions and an amount of US$2.00 million is earmarked.	7.5	3
	DLI-3: Improved procurement systems in place at Regional Road Entities with measurement and reporting of procurement and contract performance based on agreed Key Performance Indicators (KPIs) (Number). The DLI is non-scalable and will be achieved when Regional Road Entities that report procurement and contract performance on agreed KPI with the following minimum elements addressed: (i) share of different procurement methods, (ii) competitiveness (number of bidders), (iii) timeliness of the procurement process, (iv) contract amounts with tracking of costs per km, and (v) contract implementation performance by tracking cost and time overruns including names of contractors. All relevant data required for producing the KPI results will be regularly collected and analyzed for all procurements undertaken under each of the Regional Road Entities. The Regional Public Procurement Agencies (RPPAs) will timely carry out the audit of procurement and contract performance as per the KPIs and produce a report which will be submitted to the Regional Road Entities and the Regional Bureau of Transport, which will also provide copy of the report to MUI. The MAC will remain as a precondition for assessing achievements under this DLI throughout the Program period.	3.75	1.5
2. Climate Resilient Rural Accessibility and Safety	**DLI-4: People that benefit from improved access to sustainable rural roads and connectivity services (Number)** This DLI will be achieved when 11,356,191 people are newly accessing the connectivity assets, out of which 5,651,404 are women. The DLI is scalable and will be achieved when the commissioned rural roads, trail bridges, approach roads and other special structures provide accessibility to the targeted people. The annual assessment will be done of the completed and operationalized connectivity assets, considering the population of newly connected Kebeles, farm families in the agricultural potential areas connected, etc. The MAC will remain as a precondition for assessing achievements under this DLI throughout the Program period.	22.5	9
	DLI-5: Climate resilient and all-Season Connectivity assets operationalized (Length, Kilometer) This DLI will be achieved when 7554 kilometers of rural roads, 373 trail bridges along with pedestrian approach roads, and 750 special structures are constructed/ upgraded using climate resilient designs ensuring all season connectivity. The DLI is scalable, and assets completed as well as partially completed will be eligible for reporting achievement of DLI per Verification Protocol. For the partially completed assets the physical progress will be at least 20 percent. US$25 million upon achievement of initial 20 percent of physical progress of works, and thereafter US$25 million in tranches upon achievement of an additional 20 percent physical progress of works up to a maximum of US$125 million.	125	50

Results area	DLIs	Amount (US$ million)	PforR (%)
	Physical progress of works is defined as the sum of the payments made under the works contracts for the work done (excluding advances and claims) as per the schedule of payments in the bid document following the national system divided by the sum of the contract prices (the lumpsum contract price as mentioned in the contract agreements) of all the works. A comprehensive review will be carried out during the Annual Performance Assessment. The review covers engineering designs prepared by the contractor and approved by the Supervision Consultant and its physical construction at site. The review also includes quality assurance, compliance with and implementation of Environmental and Social Management Plans, etc. The assessment will verify and certify that the DLIs have been fully or partially achieved. The MAC will remain as a precondition for assessing achievements under this DLI throughout the Program period. There are three prior results included in this DLI: (i) Establishing and empowering Steering Committees at Federal Regional levels- US$3.5 million. (ii) Preparation of standard consultants and contractors' selection documents to customize for procurement of consultants and contractors by the RREs US$2.5 million. (iii) Reviewing and updating of Rural Road's design manuals US$4.5 million.		
	DLI-6: Enhanced safeguards compliance by Regional Road Authorities (including all Woredas under them) as assessed through timely annual audits and safeguard reviews by Regional environmental regulatory authorities (Number) This DLI is non-scalable and will be achieved upon completion by the RREs and all Woredas under them of: (i) E&S screening based on the Environment and Social Management Guidelines (ESMG); (ii) Preparation of Environment and Social Management Plan(s) (ESMP)s / Environment and Social Impact Assessment (ESIA); (iii) Review and approval of ESMPs, screening reports by the regulatory agency; (iv) Documented evidence on the implementation of the ESMPs; (v) E&S considerations in the contract documents; and (vi) Annual E&S auditing by the regional EPA. The MAC will remain as a precondition for assessing achievements under this DLI throughout the Program period.	3.75	1.5
3. Longevity and Sustainability of Investment	**DLI-7: Improved Woreda roads with assured and safe use (accessible and motorable during all seasons of the year) (Length, Kilometer)** This DLI is scalable and will be achieved upon periodic maintenance of 10,000 km and accident data sharing to the RRE from the Accident Monitoring System. The MAC will remain as a precondition for assessing achievements under this DLI throughout the Program period.	25	10

III. PROGRAM IMPLEMENTATION

A. Institutional and Implementation Arrangements

47. **The Program will** be implemented through **collaboration of diverse counterparts at the Federal, Regional, and Woreda levels, fostering both horizontal and vertical coordination to ensure a robust program delivery**. These counterparts include the Ministry of Finance, Ministry of Urban and Infrastructure, Ethiopian Roads Administration, Regional Roads Entities, and Woreda Road Offices. Program implementation will be anchored in multi-level implementation arrangements at Federal, Regional, and Woreda levels that will ensure Program oversight and coordination across sectors and different levels of government. MUI is the key oversight institution in charge of the

Program and will be the responsible sector ministry to own, lead, and coordinate the Program at the Federal level. The federal RCAP Project Coordination Office established under MUI will provide Program direction, coordination, instructions and supervision of Program activities at the federal level and will be responsible for overall coordination, reporting, and communication with the World Bank. RREs will take the same responsibility at the regional levels. The 13 RCAP regional coordination offices established for the Program will be responsible for day-to-day Program implementation in their respective regions including project management, procurement (as appropriate) and monitoring and reporting. Depending on their capacity, the WROs will be given responsibility for day-to-day Program implementation in their respective jurisdictions, including project management, environment and social, monitoring and reporting. ERA will provide technical support and build capacity at regional and woreda levels as required.

48. The Government will establish a Steering Committees and Technical Committees at federal, regional, and woreda levels with membership from various ministries, entities, offices, and institutions to provide additional oversight, coordination, integration of activities, and leadership. The details will be provided in the PIM.

49. ATI is the implementing agency for window 1 of the IPF component. Given the ATI's existing expertise and engagement in promoting digitalization of agricultural services it will implement the pilot of the E-marketplace platform. Within ATI, the Agricultural Digitalization and Systems Senior Director will oversee the implementation of the sub-component. The Senior Director will also liaise and communicate with the State Minister of the Ministry of Trade and Regional Integration. Direct management of window 1 will be done by a project management team within ATI. Broader oversight functions will be provided by the Program steering committee discussed above (under the PforR). In addition, a sub-committee of the Program technical committee will provide technical support. Implementation will be carried out at the federal level.

50. Capacity building activities under the IPF window 2 will be managed and undertaken by the Federal RCAP Project Coordination Office established under MUI.

B. Results Monitoring and Evaluation

51. The overall M&E framework will adhere to the requirements of the operation. The key elements of the framework are: (i) progress tracking of inputs and outputs; and (ii) performance assessment of results (outcomes and impacts) covering mainly, though not limited to, the DLIs for the PforR and indicators for the IPF. The details of the tools to be used for each of these responsibilities and a description of the monitoring activities will be elaborated on in the PIM. The DLIs will be further described in the DLI matrix and included in the performance assessment manual part of the PIM. The Monitoring and Evaluation (M&E) manual is also part of the PIM.

52. The PDO indicators and intermediate results indicators are summarized in the results framework which will be a primary tool for monitoring progress of results and achievement of the PDO. The indicators included in the results framework are disaggregated by type and include baselines and target values as appropriate. The intermediate indicators broadly cover all the result areas including the IPF. In addition, the second part of the results framework includes a monitoring and evaluation plan providing indicator definitions, data sources, timing, methodology, and responsibilities for information generation.

53. DLIs have been defined for all results areas of the PforR and the assessment data collection is part of the DLI verification protocol. The indicators will be assessed by an independent agency to be appointed by GoE and approved by the World Bank. Similarly, for the IPF component the methodology for assessing the indicators has been described in the M&E plan. The results of the performance assessment for the DLIs and IPF indicators will be integrated into the Program management information system.

54. For tracking progress and resource planning a management information system (MIS) will be set up covering all the indicators included in the results framework. The MIS will originate at the Woreda level, to be aggregated at the regional and federal levels. The MIS for the IPF will be part of ATI which will communicate with the main MIS. For covering the IPF activities, an Annual Work Plans (AWP) will be prepared, and progress of activities documented in the form of Quarterly Progress Reports (QPR). The MIS will be established as a web-based tool accessible to all stakeholders in the institutional framework. The Road Asset Management Framework system and the Road Accident Database Management System (RADMS) will be integrated for ensuring data flow into the MIS.

55. **The monitoring and evaluation, and learning implementation arrangement covers the federal, regional, and woreda level implementation.** The Project Coordination Offices set up at the federal and regional level for RCAP will have M&E specialists accountable for monitoring activities, who will assist the MUI and RREs. At the woreda level the chief of WRO will be responsible for ensuring reporting and maintaining information flow on Program implementation.

56. **Objectives.** The objective of the M&E system is to generate timely and relevant tracking on the Program's implementation progress and achievement of project outcomes to enable the implementing agencies and stakeholders to address issues as quickly as possible as they arise, and to incorporate lessons learned into implementation.

57. **Design and reporting**. Monitoring and reporting will take place at all levels of government. The M&E experts in the FPCO, RPCO, and WROs will be responsible for data collection and reporting with consolidation being done at the regional and federal levels. At all levels, quarterly and annual reports will be produced with the RPCO producing and submitting to the federal level consolidated reports for all woredas under their authority, and the FPCO producing and submitting to the MUI and the World Bank a consolidated national report. The details of the M&E system design and reporting will be described in detail in the PIM.

C. Disbursement Arrangements

58. **Channel one fund flow mechanisms will be applied for the operation**. The Ministry of Finance (MoF) will be the lead implementing agency responsible for managing the Program and project funds. IDA funds will be channeled to MoF from IDA. The money will be deposited into segregated foreign currency accounts to be opened by MoF at the National Bank of Ethiopia. Disbursements at MoF will be managed by the Channel One Program Coordination Directorate (COPCD) within the MoF. Federal and regional level implementing entities will open segregated accounts to receive the IDA funds. MoF will carry out transfers to federal level implementers and Bureau of Finance (BoFs), and the BoFs will release funds to regional level implementers. The first-year disbursement of the Program resources will be based on an annual work plan budget. Starting from the second year of implementation, further disbursement will be based on achievement of agreed upon performance indicators. The details of these indicators and how achievements will be ascertained, along with other details will form part of the PIM.

59. **Disbursements under the Program will follow PforR procedures and will disburse against DLIs**. Program funds will be disbursed from IDA to the MoF upon achievement of the DLIs. For each achieved DLI, a specific verification protocol will be established and will be detailed in the PIM. The MUI will enlist the services of an independent verification agent. Verification reports will be submitted within two months following the achievement of results. Once the verification report has been completed, the MUI will submit the documentation accompanied by the verification report to the World Bank. The World Bank will review and notify the Government to confirm (fully or partially) the achievement of results and the amount to be disbursed. Based on the notification, the MoF will submit the related withdrawal applications through Client Connection. The disbursement of funds will be made to the Program Designated Account (DA). Upon the IDA grant closing date, the Government will carry out an expenditure reconciliation to ensure that the total Program expenditure framework exceeds the total amount paid by the World Bank. Before the expenditure reconciliation process, the Program midterm review will allow the World Bank and the Government to identify if any corrective actions or adjustments on expenditures are required. Any excess amount will be reimbursed by the Government.

60. **For the IPF**. IDA funds will be made available to ATI and MUI through MoF. Disbursement methods available to the project will include advances to the designated account, reimbursements, direct payments, and special commitments. For advances to the designated account and for reimbursement, the project will use the report-based disbursement

method, with submission of quarterly interim financial reports (IFRs) with two quarters' expenditure forecast to the World Bank. Further details about disbursements to the project are included in the Disbursement and Financial Information Letter (DFIL).

61. **Advances.** An advance of up to 25 percent of the PforR component of the IDA grant may be available, as agreed, upon effectiveness of the Financing Agreement.

D. Capacity Building

62. **The key organization development activities for institutional development will include**: (i) influencing policy formulation; (ii) developing manuals and guidelines for updating design standards, planning principles and methodologies, implementation processes and use of innovative tools and technologies; (iii) developing and updating systems and software for asset management, monitoring road safety, web-based MIS, etc., and (iv) carrying out development activities including sectoral studies. Capacity building of personnel will include: (i) organizing various learning events including trainings, workshops and learning fora; (ii) arranging for technical assistance in emerging and innovative areas; and (iii) Road Accident Database Management System (RADMS) data collection, input, and analysis training for Police, Ministry of Transport and Logistics (MoTL), Road Safety and Insurance Fund Service (RSIFS) and ERA.

63. **Departing from the classic approach of considering capacity building as an input, the operation will shift its focus to outcomes and results of institutionalization and capacity building.** The PforR identified two DLIs for the institution development and capacity building: (i) DLI 1 at the Federal level with MUI as the result owner; and (ii) DLI 2 at the RREs as responsible for building the capacity of WROs. The details of the outcomes and impacts will be identified as DLRs in the DLI matrix which will be assessed as described in the performance assessment section part of the PIM.

64. **A collection of capacity-building tools will be used in developing staff skills and competencies.** These will include: (i) annual assessment of capacity building needs at all three levels to be iterated from annual performance assessments, World Bank mission aide memoires, and audit reports; (ii) synthesizing an annual capacity building plan and calendar incorporating all mandatory supply side activities and demand-side programs; (iii) curriculum and training module development to convert the standards, manuals and innovative technologies of the sector into learning materials and knowledge products, and (iv) outsourcing/earmarking to learning centers for planning and delivering capacity building activities.

65. **The accountability for capacity building (CB) and organization development (OD)will be with MUI and RREs to achieve the results under DLI 1 and 2.** However to provide additional skill support to the agencies in planning, delivery, and quality assurance of CB & OD activities, capacity building specialists will be included in the skill description for RCAP Program Coordination Offices, both at the Federal and regional levels. A suitable learning and resource center (existing divisions/units/centers of the ERA) will be identified at the federal and regional levels to support MUI and RREs. The CB assessment methodology, description of various CB tools, CB planning and calendar preparation, job description of capacity building specialists, quality assurance and feedback mechanisms etc. are elaborated in the capacity building part of the PIM.

66. **Capacity building for the IPF activity, i.e., on the e-market platforms will be designed and delivered by ATI** that has wide experience in planning and delivering capacity-building activities. For the IPF component, outreach programs will be drawn up to raise awareness levels of users of the facilities and software. Appropriate communication materials both in print and electronic media will be developed.

ASSESSMENT SUMMARY

A. Technical (including program economic evaluation)

67. **Rural accessibility in Ethiopia is notably limited, emphasizing the imperative to establish safe and climate resilient road connections for underserved communities**. Providing reliable, safe and sustainable climate resilient road access can effectively meet the economic and social needs of rural and isolated communities in Ethiopia. The GoE has thus developed RCAP as part of its comprehensive ten-year prosperity plan and sector development plan, aiming to enhance food security and promote overall development. The RCAP holds strategic significance through its activities on the upgrading/construction and maintenance of Woreda roads, trail bridges, and specialized structures to climate resilient standards. These infrastructure improvements would play a role in all-weather connectivity, alleviating poverty, stimulating rural economic growth and strengthening food security, fostering socio-economic activities, and addressing the unique challenges faced by pastoral communities. Hence, an investment in the RCAP will be crucial to support the government in this endeavor.

68. **Technical soundness: The operation is designed and organized to ensure that the set of DLIs effectively contribute to achieving the output results and objectives**. The Program's plans and scope have been developed to deliver the desired outcomes and bring important technical, financial, and institutional capacities in rural road asset management for the RREs and WROs. Notably, the Program places a strong emphasis on enhancing the procurement and contract management capabilities of RRE/WRO through capacity building activities, ensuring the Program’s implementation and supervision are efficient with high quality delivery. It also focuses on integrating sustainability, safety, and climate resilience measures into the RCAP. A fair and equitable prioritization mechanism will be implemented to ascertain efficient distribution of funds and create a more balanced and inclusive development outcome in rural areas. Measures and actions in the PAP and DLIs have been set to ensure balanced and inclusive development in rural areas, and to mitigate all key risks to improving productivity and successful outcomes.

69. **The lessons learned from the URRAP in Ethiopia hold significant relevance for the operation**. URRAP not only enhanced rural connectivity and access but also had wide-ranging positive effects on the rural community's livelihood conditions. It generated job opportunities for young people, stimulated the growth of small and medium-sized enterprises (SMEs), strengthened the manufacturing sector, encouraged collaboration among higher education institutions and various sectors, improved access to social services and markets, and fostered community cohesion. The success of URRAP is attributed to several factors: (i) a strong political will and commitment demonstrated at all levels, including fund mobilization, budget allocation, monitoring, and engagement of the local community; (ii) active community participation through project ownership, engagement in physical work, and contributions in cash and kind; (iii) the development of SMEs; (iv) the manufacturing of light construction equipment; (v) the provision of training and skill development; and (vi) the utilization of Low Volume Road (LVR) manuals to ensure road quality. These lessons learned will greatly streamline the implementation of the current RCAP.

70. **The institutional framework is well-suited to address its unique characteristics and effectively implement the operation**. The technical assessment confirms that the implementing agencies have the requisite capacity for implementation and monitoring. Considering the organizational structure of the PCOs, which is decentralized at both the federal and regional levels and recognizing the program's oversight by MUI and supporting role by ERA, who possesses the necessary capacity and experience in Road Asset Management (RAM) and managing similar programs, the PCOs will be given sufficient capacity to implement the operation. Moreover, the RRE, under which the regional PCO will be placed, has acquired some capacity in the past through the implementation of URRAP. In addition, the steering committee, having representatives from key players of the Program, will provide advice to the PCOs, secure engagement of relevant stakeholders and ensure achievement of Program results. Furthermore, the Program will provide support for capacity-building on overall project management, particularly at the regional and woreda levels to further enhance performance. The well-organized structure will streamline operations, improve decision-making, ensure effective monitoring and evaluation, and boost employee performance.

71. **The expenditure framework for the Program is considered adequate.** This is due to several reasons: (i) The GoE has a well-defined budget structure and classification system for government expenditures, along with a structured system for managing and tracking road-related expenses. This robust system (IFMS) would facilitate effective disbursements and tracking and reporting of expenditures. However, to further enhance efficiency, the Program will streamline the funds flow mechanism and establish appropriate reporting channels. Frequent audits will be conducted to ensure optimal performance; (ii) The Program's expenditure plan is well-organized, with clear allocations to respective Program components and activities; (iii) The Program has taken measures to ensure transparency and improve the fiduciary management capacity of implementing agencies, leading to enhanced efficiency in financial transactions, monitoring, and reporting during implementation; and (iv) The Program benefits from high stakeholder support and political will, as evidenced by the involvement of a steering committee at different levels. These factors will ensure contributions of matching funds from regions, appropriate allocation of funds, and M&E to achieve the PDO. These factors jointly promote an adequate expenditure framework, ensuring transparency, accountability, and effective utilization of funds in the Program.

72. **A robust and equitable prioritization mechanism has been established to determine the selection of Woredas and Kebeles that will benefit from the PforR financing**. A suitable selection criterion based on a priority index has been identified which ensures a fair and impartial selection process and allows integration of road access with agriculture growth to support food security. The Woreda selection criteria incorporate various key parameters, including (i) Woreda population, (ii) potential for agriculture production, (ii) road density, conditions, climate vulnerability and network redundancy, (iii) topography, terrain conditions, and climate risks, and (iv) alignment with the World Bank-financed EFRSP and the government's agricultural commercialization clusters. Similarly, the selection criteria for Kebeles include factors such as Kebele population, remoteness, surplus producing Kebeles, road connectivity in all seasons and weather, and URRAP's incomplete structures. Once the Woredas and Kebeles are selected, a final phase of prioritizing the roads will be conducted based on estimated costs, completion times of routes and on Woreda priorities. The regional administration will implement these criteria, and the knowledge gained from this process will guide the selection of Woredas/Kebeles for the entire RCAP to enhance the synergy between rural access and agriculture.

73. **The DLIs and PAP have been designed to mitigate the key technical risks, enhance maintenance practices, and ensure the long-term sustainability and resilience of rural roads**. These include: (i) enhancing infrastructure sustainability through routine and periodic maintenance, clarifying ownership and responsibilities, capacity building of maintenance divisions, SMEs, consultants, and local communities, and improving the effectiveness and efficiency of maintenance delivery through a developed maintenance strategy and manuals; (ii) creating a sustainable rural road fund for regions to increase the financial resources available for road maintenance and the efficient application of funds; (iii) developing a national strategy on rural road asset management, considerate of climate risks; (iv) implementing fair, equitable and robust selection and prioritization criteria for financing; (v) conducting capacity building and institutional strengthening of RREs and WROs; (vi) implementing a standardized monitoring and evaluation framework and commissioning a third-party for performance M&E; (vii) conducting technical audits and implementing audit recommendations; and (viii) incorporating safety and climate resilient measures in project delivery and physical works.

Economic analysis

74. **The current levels of traffic on the sample program roads, for which the economic analysis was done, fully justify the upgrading and construction works.** The economic analysis was done for a sample of 35 roads located in 9 regions of Ethiopia totaling 457.2 km, which are unpaved roads in poor condition and have on average an annual daily traffic of 133 vehicles per day in 2023. The average speed on the roads is expected to increase from the current average of 31 km per hour to around 50 km per hour after completion of the operation. In addition, the road works will make the roads more resilient to climate-related events such as heavy rain and flooding. The Roads Economic Decision (RED) Model was used to undertake economic analysis. RED computes annual road agency and users' costs for each project alternative over the evaluation period, comparing the investment program with the conditions without such investment. The road works will

result in reduced travel time and vehicle operating costs, thus reducing travel costs. The economic analysis was done considering the official exchange rate (US$1 = ETB 56) and a sensitivity analysis was done adopting an alternative exchange rate (US$1 = ETB 95) to address exchange rate distortions.

75. The cost-benefit analysis indicates that the Economic Internal Rate of Return (EIRR) for the sample roads is 47.8 percent. The Net Present Value (NPV) is US$103.53 million, at a discount rate of 7 percent, using the official exchange rate of ETB 56**.** The alternative exchange of ETB 95 decreases the overall EIRR of the operation to 46.0 percent, decreasing the NPV to US$61.43 million. The economic analysis results show that the operation has a robust economic justification. The sensitivity analysis shows that for the scenario with a 20 percent increase in construction costs, the EIRR is 41.8 percent. For the scenario with a 20 percent decrease in benefits, the EIRR is 40.6 percent. If both scenarios are combined, the EIRR is 35.4 percent. Details of the economic analysis are given in Annex 3.

76. As the sensitivity analysis using alternative exchange rates show, the operation remains viable and is expected to generate a substantial positive impact on the country's economy even with existing distortions. The World Bank is working closely with GoE and the IMF to address Ethiopia's macroeconomic imbalances and exchange rate distortions, and this engagement and any subsequent agreement on a reform program will serve as mitigating measures against any future risks arising from further distortions.

77. The GHG accounting assessment estimates that there will be an increase in CO_2 emissions on the targeted roads. Total gross CO_2 emissions over the 20-year evaluation period are estimated at 660,235 tons under the "without-project" scenario and 669,196 tons under the "with-project" scenario, resulting in net CO_2 emissions of 8,961 tons, or 448 tons per year. The increase in CO_2 emissions is attributed to the increase in fuel consumption "with the project" due to the increase in generated traffic.

78. Road Safety Benefits will be calculated using RED. Since the roads are low volume, the Road Safety Screening and Appraisal Tool cannot be used, as discussed with the Global Road Safety Facility. Total road safety benefits and the changes in fatalities will be reported using RED, and these benefits will be included in the overall economic analysis.

Paris Alignment

79. The operation is aligned with the goals of the Paris Agreement on both mitigation and adaptation. It is consistent with the country's National Determined Contribution (NDC), NAP, LTS and with the CCDR, as documented in the section on Relevance and Higher-Level Objectives.

80. Assessment and reduction of mitigation risks: The operation is not expected to cause a negative impact on the country's low-GHG-emissions development pathways since the activities financed under this operation are Universally Aligned (UA) or present a low risk from a mitigation perspective. The PforR operation invests in upgrading/construction and maintenance of rural roads with low traffic volumes, pedestrian trail bridges and special structures providing access to communities that currently do not have all-weather access to rural schools, health facilities, rural markets and job opportunities. Investments do not carry a risk of contributing to deforestation and will include provisions for non-motorized transport such as sidewalks and cycle tracks. It should be noted that Ethiopia is a low-income economy, characterized by low connectivity, low paved road density and low motorization rates. The IPF component invests in digital market platform. Measures will be taken to prevent, reduce and dispose of food waste and other types of market waste through low emission solutions, e.g., separate waste collection, material recovery, composting, etc. The project invests in technical assistance that do not hinder the mitigation goals of the country.

81. Assessment and reduction of adaptation risks: The operation adequately reduces physical climate risks through climate resilience and adaptation design considerations, limiting the exposure and vulnerability of the operation to an acceptable level of residual risk. The climate and disaster risk screening (CDRS) for the operation found that the country is highly exposed to variable rainfall patterns, increasing temperatures and extreme heat, wildfire, floods, water scarcity and droughts, landslides in mountainous areas, soil erosion and land degradation. These risks are expected to increase with climate change. The CDRS also identified the risk of volcano eruption and earthquakes[25]. The main climate change and natural hazards likely to affect the project investments are pluvial and river floods and rising temperatures and extreme heat. River floods can cause erosion, soil and debris deposit, bridge and road damage and asset wash-away. Extreme heat can also damage the pavement of bridges and roads. These impacts can cause road and bridge disruptions and interruption in connectivity, impacting communities. Climate and natural hazards risks for bridges, roads and agricultural markets will be managed and limited through the deployment of climate resilient standards when upgrading/constructing roads, trail bridges, special structures and market buildings and through targeted adaptation measures. Trees will be planted in market locations to provide shade and cooling in the face of rising temperatures. Capacity building and technical assistance activities will integrate climate risk and resilience considerations in bridge and rural road management systems and include training to facilitate the deployment of climate resilient standards.

B. Fiduciary

82. **An Integrated Fiduciary Systems Assessment (FSA) for the Program was carried out on Federal and Regional government entities that will be implementing the Program consistent with the World Bank Policy, Directive, and Fiduciary Systems Assessment Guidance Note for PforR Financing**. For the IPF component, assessment has also been conducted in accordance with the World Bank Policy, Directive, and Guidance note on IPF. The World Bank assessed whether the Program's fiduciary systems provide reasonable assurance that financing proceeds will be used for the intended purposes, with due attention to the principles of economy, efficiency, effectiveness, transparency, and accountability with due attention to efficiency and accountability. A detailed FSA has been prepared, and the summary is found in Annex 4.

83. **Reasonable assurance**. Overall, the fiduciary assessment for this operation concludes that the examined financial management, governance, and procurement systems are adequate to provide reasonable assurance that the financing proceeds will be used for intended purposes, with due attention to principles of economy, efficiency, effectiveness, transparency, and accountability. Risk mitigating measures are adopted in the fiduciary arrangements for the project and through the DLIs and Program Action Plan (PAP).

84. **The overall fiduciary risk of the Program is High**. Generic risks include the risk of conflict and its implications on project implementation and supervision; staffing challenges in fiduciary (financial management and procurement) including capacity limitations, turnover. In addition, key financial management (FM) risks identified include: (i) absence of uniformity of code and cost element; (ii) possible inability of existing systems to capture and report Program expenditures according to cost classification leading to manual intervention in preparing consolidated reports of the Program; (iii) challenges in IBEX connectivity and access problems to different units resulting in delays of reporting; (iv) weak internal audit oversight; (v) internal control weaknesses in cash, property management and monitoring of advances; and (vi) delay in taking timely action on external audit findings by some of the implementing entities which result in qualified audit opinions on the financial statements. The key procurement risks identified are: (i) noncompetitive contracting processes for selection of contractors and consultants as was practiced during URRAP; (ii) weak coordination between user units and procurement units; (iii) improper application of merit point evaluation in works contracts; (iv) delays in the procurement processes; (v) weak procurement oversight; (vi) possibility of bidders competing in different regions or in multiple contracts within a region with multiple award scenarios despite capacity limitations to execute multiple contracts, (vii) weak contract management capacity leading to time and cost overruns and poor quality outputs, (viii) high rate of construction material price increase and unavailability essential materials like cement in the market, and (ix) the security situation affecting competitiveness, smooth transportation of construction materials, creating construction delays and suspensions. On the other aspect, the key fraud and corruption risks identified indicate that it is necessary to strengthen the vertical and horizontal relationship/ linkage/ of institutions and the respective staffing and capacity of both fraud and corruption (F&C) prevention and control, and public complaint-handling system for tracking, recording, and reporting of

[25] Source: ThinkHazard! https://thinkhazard.org/

F&C at federal, regional, and woreda levels. Strengthening the system is required for the Program to satisfy the PforR policy requirement of the application of the World Bank's Guidelines on Preventing and Combating Fraud and Corruption in Program-for-Results Financing, dated February 1, 2012, and revised July 10, 2015 (PforR Anti-Corruption Guidelines).

85. **The fiduciary systems in place help mitigate the risks identified**. The mitigation measures include measures to address fiduciary issues in the occurrence of conflict; maintenance of appropriate and uniform code mapped to the expenditure framework/costing at relevant accounting entities; preparation of appropriate and sufficiently detailed annual work plan and budget for the Program allowing implementing entities with the resources to carry out the Program and report accordingly; enabling the systems to capture Program expenditure across all levels and operation of standalone system (IBEX) for the Program; the PIM will include a section for fiduciary to guide implementation; providing access to relevant units such as internal audit and budget to the IBEX system; establishing mechanisms of monitoring advances and taking action on uncollectable balances; agreeing timetable for implementing entities to be up to date with their external audits and monitoring audit report findings; and strengthening the internal control weaknesses through internal and external audit reviews and recommendations. The Program will submit quarterly financial and procurement tracking reports to the World Bank and relevant stakeholders. Staffing levels will be strengthened, particularly at the regional level, to ensure that the system continues to function well. The government's procurement audits, and fraud and corruption reports are also part of the Program arrangements. Activities are initiated to improve the transparency and performance of the procurement system at all levels. The existing robust legal framework for addressing fraud and corruption risks in Ethiopia also contributes to a strengthened system. Furthermore, the PforR expenditure reconciliation will be conducted during quarterly IFR review, at midterm review as well as at the end of the Program. During implementation, if expenditures outside the scope of the Program are identified, they will be excluded from the expenditure framework and will not form part of the reconciliation process. Procurement under the PforR will be based on the national procurement system applicable through sub-national legal frameworks. RREs will be responsible for financial management and procurement implementation following their respective applicable regulatory framework and institutional structure. A procurement DLI is included which requires regular reporting of procurement and contract performance through agreed KPIs ensuring the procurement and contract management function will be properly monitored. The DLI will also help as oversight mechanism to regularly monitor excluded High Value Contracts not implemented under the operation. In addition, PAP actions to strengthen the fiduciary system have been agreed to address gaps observed at both the federal and regional levels in FM, procurement, fraud and corruption, and compliant handling.

86. **For activities under the IPF window, relevant procurement and FM IPF policies and directives will apply**. IDA funds will be made available to ATI and MUI through MoF. Procurement will be carried out in accordance with the World Bank Procurement Regulations for IPF Borrowers, dated September 2023 (Procurement Regulations); Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated October 15, 2006, and revised in January 2011 and as of July 1, 2016 (IPF Anti-Corruption Guidelines); and the provisions stipulated in the financing agreement. Procurement will be implemented by ATI and MUI. The Project Procurement Strategy for Developments (PPSD), which includes market conditions, risks, and corresponding approaches resulting in an 18-month Procurement Plan (PP) have been prepared by both ATI and MUI. Systematic Tracking of Exchanges in Procurement (STEP) will be used to prepare, clear, and update PPs and to conduct all procurements. For FM, the MoF will be a responsible entity liaising with MUI and ATI. Quarterly Interim financial reports will be submitted to the World Bank by MoF. Annual financial audits will also be conducted with audit reports submitted within six months of the fiscal year's end. All disbursement methods will be available and segregated designated account will be opened at the National Bank of Ethiopia to be managed by MoF. Details of disbursement arrangements are specified in the DFIL.

C. Environmental and Social

87. T**he Program has several socio-economic benefits, including enhanced accessibility and rural connectivity, increased agricultural production, and market opportunities.** However, the implementation of the Program will have adverse environmental, health, and safety risks and impacts. The upgrading/construction of rural roads and hydraulic

structures will result in several issues: (i) soil erosion and degradation primarily due to earthwork activities and construction of drainage structures across natural channels; (ii) alteration of surface water flow due to road embankments and hydraulic structures blocking and concentrating runoff, and large quantities of water will also be used for road surface preparation; (iii) impact on surface water quality due to sedimentation resulting from soil erosion; (iv) potential effects on vegetation during land preparation for new rural roads; (v) emission of dust from construction activities resulting in ambient air pollution; (vi) impacts arising from the operation of construction material sites since construction materials such as gravel and masonry stone are required for road bed preparation, pavement, and structural work; and (vii) occupational health and safety risks to project workers. During rural roads operation, there is a risk of traffic and road safety issues. Additionally, other risks during the operation period include dust emission and ambient air pollution, sedimentation, and deterioration of water quality in surface water bodies. These risks will be effectively managed by implementation of the E&S actions included in the Program Action Plans and annexed to the Environmental and Social System Assessment (ESSA).

88. The Program will be implemented by multiple institutions at all levels, including the Ministry of Urban and Infrastructure, Regional Roads Entities, and woreda road offices. To manage the risks and impacts of the PforR operation, an environmental and social system assessment has been conducted, and a Program Action Plan - has been developed. The PAP includes the following measures: (i) strengthening and maintaining the Environmental and Social Management System of the implementing agencies, including the preparation of Environmental and Social Management System Guidelines (ESMSG) and a Voluntary Land Donation Protocol (VLDP) that shall be prepared by the recipient by effectiveness., establishing E&S structures at all levels (national, regional, woreda, contractors, consultants), capacity building of the implementing agencies, screening of all subprojects, preparation of E&S instruments for subprojects, engaging with the relevant regulatory bodies in clearing E&S instruments, and undertaking E&S auditing; (ii) ensuring workers' and public safety management; (iii) enhancing the participation of indigenous people, women, and other vulnerable groups in Program implementation; and (iv) establishing and maintaining a functional grievance redress mechanism (GRM). Furthermore, to effectively monitor the E&S management activities, a Disbursement Linked Indicator addressing the following activities has been included in the Program design: (a) E&S screening of subprojects based on the ESMG by each woreda; (b) preparation of subproject-specific E&S instruments; (c) approval of E&S screening reports and E&S risk management tools by the regulatory agency; (d) consideration of E&S risk management issues in construction bidding documents; and (e) annual E&S auditing by the regulatory agencies and incentivizing the regulatory agency through the allocation of resources. Environmental and Social Review Summary (ESRS), Environmental and Social Commitment Plan (ESCP) and Stakeholder Engagement Plan (SEP) have been prepared and disclosed on World Bank’s external website in March 2024. The ESCP and SEP were disclosed on ATI’s website on March 5, 2024.

89. Citizen engagement. The operation will build upon existing channels for engaging with citizens and receiving their grievances which are currently in practice in regions and woredas in ongoing government programs and World Bank-financed operations. The engagement with citizens under the operation will be in the following five main areas: (i) identification, selection and prioritization of projects; (ii) participation in maintenance on an individual basis or as members of SMEs; (iii) participation in labor-based construction on some projects; (iv) environmental and social risk management regarding bringing to the attention of authorities any environmental and social risks that may result from implementation and being consulted on the measures to be taken to mitigate them; and (v) participation in the Grievance Redress Mechanism regarding all grievances and complaints including those related to environmental and social risks/issues. Further details will be provided in the PIM.

90. Grievance Redress. Communities and individuals who believe that they are adversely affected as a result of a Bank supported PforR operation, as defined by the applicable policy and procedures, may submit complaints to the existing program grievance mechanism or the Bank’s Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed to address pertinent concerns. Project affected communities and individuals may submit their complaint to the Bank’s independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred, or could occur, because of Bank 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 at any time after concerns have been brought directly to the Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the Bank's Grievance Redress Service (GRS), visit https://www.worldbank.org/GRS. For information on how to submit complaints to the Bank's Accountability Mechanism, visit https://accountability.worldbank.org.

91. Gender. The operation will contribute to addressing gaps in employment and entrepreneurship. The IPF component will finance analytical work to map the value chain with a gender perspective to understand differences between women's and men's work and participation in the different nodes relevant for the project (i.e., production, aggregation, processing, and distribution). Data will be disaggregated to better understand gender differences and barriers in participation in the value chain. In addition, the assessment will include the extended value chain to deconstruct the enabling factors to women's entrepreneurship, including transport and financial institutions. The study will also include an assessment of the barriers that women face to benefit from the digital platforms. Derived from the assessment, a Gender Action Plan will be developed to contribute to testing some solutions to address identified constraints as part of the pilot. In addition, the operation will support the participation of women engineers in the training activities through the implementation of memoranda of understanding with selected universities to ensure gender sensitive recruitment practices as well as an analysis of human resources policies in MUI/ERA/RREs. The operation will support women's participation in microenterprises by analyzing and providing recommendations to address women's constraints, including but not limited to gender sensitive recruitment practices, analysis of restrictions for women to register and own a road maintenance microenterprise, and installment of a mechanism to report sexual harassment in the workplace. These microenterprises will be part of the list of the government service providers which can have a long-term engagement in road maintenance works after completion.

92. Climate Change. Annex 8 summarizes the operation's climate change adaptation and mitigation measures.

D. Risk Assessment

93. The overall risk is substantial, due to the high political and governance and macroeconomic risks. Other high and substantial risks include: fiduciary, environmental and social, and stakeholders risks. The description of risks and associated mitigation measures is summarized below.

94. Political and Governance risk is rated High. Ethiopia is currently undergoing a transformative period, which has resulted in various uncertainties, conflicts, and insecurities. Although there has been some progress in terms of political openness since the transition of power in 2018, various political groups continue to express long-standing grievances related to issues of ethnic identity and governance. The ongoing conflict in the country has led to social unrest, internal displacements, and it is expected to persist as a comprehensive political resolution has not yet been achieved. While substantive mitigation measures are largely outside the implementing agencies' capacity, the operation is expected to bring the community together for the common purpose of development. The World Bank and counterpart teams will monitor the situation closely and collaborate with client entities, partners, and other stakeholders to manage the risk to the extent possible and update risk ratings regularly.

95. Macroeconomic risk is rated High. Macroeconomic imbalances have deteriorated as high domestic inflation has persisted, foreign exchange shortages intensified, and domestic and external buffers depleted. Foreign exchange shortages are disrupting public and private sector activity and contributing to inflation. High level of inflation will contribute to rising operation costs while the distortions in the foreign exchange market could reduce the local currency equivalent resources channeled to the operation. Sensitivity analyses for shadow exchange rates were included in the economic analysis to get a better sense of potential impacts of the foreign exchange distortions. The World Bank will work closely with the IMF, and other appropriate bodies to ensure close coordination to mitigate these risks.

96. Fiduciary risk is rated High. The operation involves significant activities at the regional level and implementation will include federal and regional level entities. Although MoF and MUI have experience in managing World Bank-financed operations, regions are not used to managing substantial resources for capital investments. General fiduciary risks include risk of conflict and its implications, staffing challenges and capacity limitations. Key financial management risks include absence of uniform code and cost element, delays and quality of reporting and weak internal audit oversight and delays in taking timely action on audit findings. Key procurement risks identified are noncompetitive contracting, delays in procurement processes, weak oversight, possibility of bidders in multiple contracts and weak contract management capacity. Main fraud and corruption risks identified are weak linkages of institutions, capacity limitations in fraud and corruption prevention and inadequate public compliant handling system. These risks are based on previous experiences in the implementation of World Bank-financed operations and the information from fiduciary system assessment. Mitigation measures will ensure the maximum training and support is provided where necessary. While there is less concern for the IPF component, which will be managed by an existing and experienced PIU, this component will be monitored closely. The operation put in place risk mitigation measures through PAP and DLIs.

97. The overall environmental and social risk of the program is rated as Substantial. The operation is expected to have a range of socioeconomic benefits including increased access to markets for local produce and products, employment of local workers in Program activities, better access to health care and other social services, etc. However, the envisaged investments can have significant environment, social, health and safety risks. Some of these risks and impacts on the Program, include loss of vegetation cover, modifications of natural drainage patterns, surface water quality deterioration, soil erosion and land degradation, air emission risks, generation of waste, involuntary resettlement (and physical and economic displacement), occupational health and safety risks arising from physical, chemical and biological hazards, and community health and safety risks (exposure to dust, noise, and vibration; spread of communicable diseases; traffic and road safety risks; security risk; and risk of gender based violence (GBV), Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH). Some of these risks and impacts on the Program, include loss of vegetation cover, modifications of natural drainage patterns, surface water quality deterioration, soil erosion and land degradation, air emission risks, generation of waste, involuntary resettlement (and physical and economic displacement), occupation health and safety risks arising from physical, chemical and biological hazards, and community health and safety risks (exposure to dust, noise, and vibration; spread of communicable diseases; traffic and road safety risks; security risk; and risk of GBV/SEA/SH). This contextual risk (security and GBV) could impede the successful implementation of the operation in some areas. Hence, an ESSA was conducted to identify the gaps in the client's E&S risk management system and identify remedial measures included in PAP. The implementation of the PAP will help manage the E&S risks. Besides, E&S related DLI and minimum access condition have also been integrated in the Program design so that potential risks could be meaningfully mitigated.

ANNEX 1. RESULTS FRAMEWORK MATRIX

ETHIOPIA RURAL CONNECTIVITY FOR FOOD SECURITY PROGRAM

Program Development Objective(s)

The PDOs is to enhance the climate resilient accessibility of target populations to food markets and services; and strengthen the institutional capacity for rural roads management

PDO Indicators by Outcomes

Baseline	Period 1	Period 2	Period 3	Period 4	Closing Period
Climate Resilient Rural Accessibility to food markets and services					
Rural population that benefits from improved access to sustainable transport infrastructure and services (Number) DLI					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
52,695,410	53,831,029	57,237,886	60,644,744	62,915,982	64,051,601
➢Women (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
26,347,705	26,915,515	28,618,943	30,322,372	31,457,991	32,025,801
Woreda roads upgraded/constructed to climate resilient and road safety standards (Kilometers)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	755	3021	5287	6798	7553
Trail bridges and approach roads constructed to climate resilient standards (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	37	149	261	336	373
Special structures constructed to climate resilient standards (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	71	285	499	642	713
Institution Development and Capacity Building					
Enhanced readiness of Regional Roads Entities for initiating program implementation Complying with Minimum Eligibility Conditions (Number) DLI					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	13	13	13	13	13

Intermediate Indicators by Results Areas

Baseline	Period 1	Period 2	Period 3	Period 4	Closing Period
Institution Development and Capacity Building					
Engineers and WRO technicians benefiting from capacity building programs (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	557	2228	3899	5013	5570
➢out of whom women (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	84	418	836	1170	1365
Regional Road Entities with improved procurement systems in Place (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	13	13	13	13	13
Woreda Road Offices with enhanced institutional and human resource capacity (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	120	240	360	480	600
Climate Resilient Physical and Digital Access to Food Markets					
Regional Road authorities complying with enhanced environmental and social safeguards (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	13	13	13	13	13
Micro-enterprises established and engaged for road maintenance (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	10	34	85	136	170
➢Of which, owned by women (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	1	5	10	15	15
Institutions registering and transacting regularly the digital market platform (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	120	270	460	705	1,005
Beneficiaries registering and transacting regularly the digital market platform (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
1,511,089	1,765,990	2,097,361	2,510,007	3,035,299	3,726,011
➢Out of which, women (Number)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
483,548	600,437	734,076	1,004,003	1,365,885	1,863,006

Longevity and Sustainability of Investments on rural roads					
Woreda roads receiving periodic and routine maintenance considerate of climate risks (Kilometers)					
Mar/2024	May/2025	May/2026	May/2027	May/2028	Mar/2029
0	1,000	4,000	7,000	9,000	10,000

Disbursement Linked Indicators (DLI)

Period	Period Definition	Timeline
Period 0	FY24	2024
Period 1	FY25	2025
Period 2	FY26	2026
Period 3	FY27	2027
Period 4	FY28	2028
Period 5	FY29	2029

Baseline	Period 0	Period 1	Period 2	Period 3	Period 4	Period 5
5 : Climate resilient and all-Season Connectivity assets operationalized (Number)						
-	PR 1. Establishment of Steering Committees at Federal and Regional levels, PR2. Preparation of standard Consultants and Contractors selection documents to customize for procurement of Consultants and Contractors by the Regions; PR3 Reviewing and	NIL	DLR 5.2. Achievement of initial 20 percent of physical progress of works	DLR 5.3.1. Achievement of additional 20 percent of physical progress of works DLR 5.3.2. Achievement of additional 20 percent of physical progress of works	DLR 5.4.1. Achievement of additional 20 percent of physical progress of works DLR 5.4.2. Achievement of additional 20 percent of physical progress of works	NIL

	updating of rural roads design manuals					
0.00	11,000,000.00	0.00	24,000,000.00	45,000,000.00	45,000,000.00	0.00
DLI allocation		125,000,000.00		As a % of Total Financing Amount		50.0%
4 : Rural population that benefits from improved access to sustainable transport infrastructure and services (Number)						
52,695,410	NIL	NIL	DLR 4.2: 2,271,238 people are accessing the connectivity assets, out of which 1,135,579 are women	DLR 4.3: 4,542,477 people are accessing the connectivity assets, out of which 2,271,158 are women	DLR 4.4: 4,542,477 people are accessing the connectivity assets, out of which 2,271,158 are women	NIL
0.00	0.00	0.00	4,500,000.00	9,000,000.00	9,000,000.00	0.00
DLI allocation		22,500,000.00		As a % of Total Financing Amount		9.0%
7 : Improved Woreda roads with assured and safe use (accessible and motorable during all seasons of the year) (Kilometers)						
-	NIL	NIL	DLR 7.2.1. Periodic maintenance of 2,000 km of woreda roads. DLR 7.2.2. Accident Data sharing to the Regional Road Entity from the Accident Monitoring System.	DLR 7.3.1. Periodic maintenance of 4,000 km of woreda roads. DLR 7.3.2. Accident Data sharing to the Regional Road Entity from the Accident Monitoring System.	DLR 7.4.1. Periodic maintenance of 4,000. km of woreda roads. DLR 7.4.2. Accident Data sharing to the Regional Road Entity from the Accident Monitoring System.	NIL
0.00	0.00	0.00	5,000,000.00	10,000,000.00	10,000,000.00	0.00
DLI allocation		25,000,000.00		As a % of Total Financing Amount		10.0%
6 : Enhanced safeguards compliance by Regional Road Authorities and Woredas as assessed through timely annual audit and safeguard reviews by Regional environmental regulatory authorities (Number)						
0	NIL	DLR 6.1.1: Compliance of: (a) E&S screening based on the ESMG (b) Preparation of ESMPs/ESIA (ci) Review and approval of ESMPs, Screening reports by the regulatory agency. (d) Documented evidence on the	DLR 6.2.1: Compliance of: (a) E&S screening based on the ESMG (b) Preparation of ESMPs/ESIA (ci) Review and approval of ESMPs, Screening reports by the regulatory agency. (d) Documented evidence on the	DLR 6.3.1: Compliance of: (a) E&S screening based on the ESMG (b) Preparation of ESMPs/ESIA (ci) Review and approval of ESMPs, Screening reports by the regulatory agency. (d) Documented evidence on the	DLR 6.4.1: Compliance of: (a) E&S screening based on the ESMG (b) Preparation of ESMPs/ESIA (ci) Review and approval of ESMPs, Screening reports by the regulatory agency. (d) Documented evidence on the	NIL

		implementation of the ESMPs (e) E&S considerations in the contract documents (f) Annual E&S auditing by the regional the Environment Protection Authority (EPA) DLR 6.1.2. Timely annual audit and safeguard reviews by Regional environmental regulatory authorities.	implementation of the ESMPs € E&S considerations in the contract documents (f) Annual E&S auditing by the regional EPA DLR 6.2.2. Timely annual audit and safeguard reviews by Regional environmental regulatory authorities.	implementation of the ESMPs (e) E&S considerations in the contract documents (f) Annual E&S auditing by the regional EPA DLR 6.3.2. Timely annual audit and safeguard reviews by Regional environmental regulatory authorities.	implementation of the ESMPs (e) E&S considerations in the contract documents (f) Annual E&S auditing by the regional EPA DLR 6.4.2. Timely annual audit and safeguard reviews by Regional environmental regulatory authorities.	
0.00	0.00	937,500.00	937,500.00	937,500.00	937,500.00	0.00
DLI allocation		3,750,000.00		As a % of Total Financing Amount		1.5%
2 : Institutional strengthening of Woreda Roads Offices enhanced for implementing the program (Number)						
0	1. Selection of Woredas by the Regions	NIL	DLR 2.1. Manuals developed by the Regional Road Authorities and disseminated to woredas	-	-	-
0.00	2,000,000.00	0.00	5,500,000.00	0.00	0.00	0.00
DLI allocation		7,500,000.00		As a % of Total Financing Amount		3.0%
3 : Improved procurement systems in place at Regional Road Entities with measurement and reporting of procurement and contract performance based on agreed KPIs (Number)						
0	NIL	KPIs targeting: (a) share of different procurement methods; (b) competitiveness (number of bidders); (c) timeliness of the procurement process; (d) contract amounts	KPIs targeting: (a) share of different procurement methods; (b) competitiveness (number of bidders); (c) timeliness of the procurement process; (d) contract amounts	KPIs targeting: (a) share of different procurement methods; (b) competitiveness (number of bidders); (c) timeliness of the procurement process; (d) contract amounts	KPIs targeting: (a) share of different procurement methods; (b) competitiveness (number of bidders); (c) timeliness of the procurement process; (d) contract amounts	-

		with tracking of costs per km; (e) contract implementation performance by tracking cost and time overruns including names of contractors. DLR 3.1.1 KPI instrument, which is used for recording data and reporting on indicators, which has already been developed by the FPPPAA is provided by MUI to all Regional Road Entities. DLR 3.1.2. Regional Road Entities record data and report on the five KPI target areas using the KPI instrument provided by MUI.	with tracking of costs per km; (e) contract implementation performance by tracking cost and time overruns including names of contractors. DLR 3.2. Regional Road Entities record data and report on the five KPI target areas using the KPI instrument provided by MUI	with tracking of costs per km; (e) contract implementation performance by tracking cost and time overruns including names of contractors. DLR 3.3. Regional Road Entities record data and report on the five KPI target areas using the KPI instrument provided by MUI	with tracking of costs per km; (e) contract implementation performance by tracking cost and time overruns including names of contractors. DLR 3.4. Regional Road Entities record data and report on the five KPI target areas using the KPI instrument provided by MUI	
0.00	0.00	937,500.00	937,500.00	937,500.00	937,500.00	0.00
DLI allocation		3,750,000.00		As a % of Total Financing Amount		1.5%
1 : Enhanced readiness of Regional Roads Entities for initiating program implementation Complying with Minimum Eligibility Conditions (Number)						
0	NIL	DLR 1.1. RRE has the Annual Budget for the Current Year (2024-25) (EFY 2017) with clear Matching Fund allocations for Rural roads approved by the Regional Government. DLR 1.2. All critical staff in position including	DLR 1.1. RRE has the Annual Budget for the Current Year (2024-25) (EFY 2017) with clear Matching Fund allocations for Rural roads approved by the Regional Government. DLR 1.2. All critical staff in position including	DLR 1.1. RRE has the Annual Budget for the Current Year (2024-25) (EFY 2017) with clear Matching Fund allocations for Rural roads approved by the Regional Government. DLR 1.2. All critical staff in position including	DLR 1.1. RRE has the Annual Budget for the Current Year (2024-25) (EFY 2017) with clear Matching Fund allocations for Rural roads approved by the Regional Government. DLR 1.2. All critical staff in position including	DLR 1.1. RRE has the Annual Budget for the Current Year (2024-25) (EFY 2017) with clear Matching Fund allocations for Rural roads approved by the Regional Government. DLR 1.2. All critical staff in position including Management Head/ Deputy, Technical

		Management Head/ Deputy, Technical staff, Finance Specialist, Procurement Specialist, E&S Safeguards Specialist, and Monitoring Specialist. 1.3. The regional road entities have assigned procurement staff- (with required Qualification, experience in works procurement) and prepared procurement plans, bidding documents including designs for 10% of km of road to be ready, posted open advertisement for all eligible national bidders, conducted bid evaluations based on standard templates and signed contracts with all procurement steps appropriately recorded. 1.4. assignment of qualified E&S focal persons for beneficiary Woreda; recruitment of E&S specialists at each regional state; and	Management Head/ Deputy, Technical staff, Finance Specialist, Procurement Specialist, E&S Safeguards Specialist, and Monitoring Specialist. 1.3. The regional road entities have assigned procurement staff- (with required Qualification, experience in works procurement) and prepared procurement plans, bidding documents including designs for 10% of km of road to be ready, posted open advertisement for all eligible national bidders, conducted bid evaluations based on standard templates and signed contracts with all procurement steps appropriately recorded. 1.4. assignment of qualified E&S focal persons for beneficiary Woreda; recruitment of E&S specialists at each regional state; and	Management Head/ Deputy, Technical staff, Finance Specialist, Procurement Specialist, E&S Safeguards Specialist, and Monitoring Specialist. 1.3. The regional road entities have assigned procurement staff- (with required Qualification, experience in works procurement) and prepared procurement plans, bidding documents including designs for 10% of km of road to be ready, posted open advertisement for all eligible national bidders, conducted bid evaluations based on standard templates and signed contracts with all procurement steps appropriately recorded. 1.4. assignment of qualified E&S focal persons for beneficiary Woreda; recruitment of E&S specialists at each regional state; and	Management Head/ Deputy, Technical staff, Finance Specialist, Procurement Specialist, E&S Safeguards Specialist, and Monitoring Specialist. 1.3. The regional road entities have assigned procurement staff- (with required Qualification, experience in works procurement) and prepared procurement plans, bidding documents including designs for 10% of km of road to be ready, posted open advertisement for all eligible national bidders, conducted bid evaluations based on standard templates and signed contracts with all procurement steps appropriately recorded. 1.4. assignment of qualified E&S focal persons for beneficiary Woreda; recruitment of E&S specialists at each regional state; and	staff, Finance Specialist, Procurement Specialist, E&S Safeguards Specialist, and Monitoring Specialist. 1.3. The regional road entities have assigned procurement staff- (with required Qualification, experience in works procurement) and prepared procurement plans, bidding documents including designs for 10% of km of road to be ready, posted open advertisement for all eligible national bidders, conducted bid evaluations based on standard templates and signed contracts with all procurement steps appropriately recorded. 1.4. assignment of qualified E&S focal persons for beneficiary Woreda; recruitment of E&S specialists at each regional state; and Adoption to the ESMG by the Woreda council as working document for management of E&S risks associated with the Program.

		Adoption to the ESMG by the Woreda council as working document for management of E&S risks associated with the Program.	Adoption to the ESMG by the Woreda council as working document for management of E&S risks associated with the Program.	Adoption to the ESMG by the Woreda council as working document for management of E&S risks associated with the Program.	Adoption to the ESMG by the Woreda council as working document for management of E&S risks associated with the Program.	
0.00	0.00	62,500,000.00	0.00	0.00	0.00	0.00
DLI allocation		62,500,000.00		As a % of Total Financing Amount		25.0%

ANNEX 2. TECHNICAL ASSESSMENT (SUMMARY)

A. Technical soundness

1. **The performance of the RSDP V has been below the expected targets over the past five years.** A total of 114,846 km of major physical works was planned of which only 40,665km (35 percent) was completed. Amongst the realized works, 13,973km was for federal roads (upgrading, construction and periodic maintenance), 9,299km for regional roads construction and 17,394km for Woreda roads construction. The GoE disbursed ETB 196.051 billion (59 percent) of the total planned budget of ETB 334.514 billion, but the physical accomplishment was smaller (35 percent) than the disbursement. Furthermore, within this period of five years, a total amount of ETB 17.166 billion was disbursed for the maintenance of federal, regional and woreda roads and this amount represents only 8.8 percent of the total disbursement, with a greater share for the maintenance of federal roads. The low physical performance is mostly attributed to the unrest and insecurity in the country, the outbreak of COVID-19, and low performance of Woredas.

2. **The ratio of road maintenance expenditure to the total roads' expenditure under the RSDP reflects unsatisfactory progress towards road sustainability**. For the past five years of the RSDP, the total disbursement for the roads was ETB 196.051 billion, but only ETB 17.166 billion was disbursed for the maintenance of federal, regional and woreda roads and this amount represents only 8.8 percent of the total disbursement. Notably, the majority of the maintenance funds were directed towards federal roads, constituting 7.2 percent of the total disbursement. Furthermore, a significant disparity emerges when comparing the planned maintenance budget to the actual expenditure within the same period. This divergence is particularly pronounced for Woreda roads, where only ETB 619.2 million (30 percent) out of the allocated maintenance budget of ETB 2.082 billion was utilized.

3. **The implementation of URRAP, as well as other rural roads program in Ethiopia, was not without challenges which need to be comprehensively tackled in RCAP.** A review study conducted by the World Bank[26] on the Ethiopia Rural Road Programs identified several technical bottlenecks that impeded their successful execution, particularly concerning URRAP. These challenges included the following areas: (i) A lack of regular maintenance, primarily due to the high reliance on community unpaid labor, which proved futile due to lack of readiness and insufficient resources for maintenance by communities. One of the challenges was also the absence of a legal framework on rural road maintenance; (ii) Lack of connectivity due to missing bridges and complementary infrastructures; (iii) Lack of a clear prioritization mechanism and weaknesses in road selections. The initial prioritization mechanism had included factors such as population, traffic, and facilities served (health, schools, and markets), but there were no clear formally documented procedures, leading to a fragmented approach to rural road development and leaving several kebeles unconnected; (iv) Variations in construction approaches and methodologies creating cost disparities; (v) In certain cases, there was a high reliance on machine-based methods rather than a fully labor-intensive method; (vi) Inadequate capacity building of local communities and shortages of competent contractors and consultants; and (vii) Lack of clarity on ownership and weak project management.

4. **The RCAP program aims to achieve a target of 70,886 kilometers (about 44,046.52 m) of Woreda road maintenance to be conducted by the WROs with prioritization of labor-intensive methods**. The plan envisions utilizing local contractors, micro enterprises involving women's participation, and local labor for the maintenance activities, which will create substantial employment opportunities for youth and women while building local capacity in rural road asset management and maintenance.

5. **Despite its ambitious maintenance targets, the existing mechanism currently in use for maintaining Woreda roads is inadequate, as it fails to address several challenges**. These challenges include, but are not limited to, the following: (i) Lack of clarity regarding ownership and responsibility; (ii) Insufficient funds allocated for maintenance; (iii) Ineffectiveness in delivering maintenance services; (iv) Limited institutional strength and capacity; (v) Shortage of

[26] World Bank. 2018. Ethiopia Review of the Ethiopian Rural Roads Program Executive Summary and Policy Options. © World Bank.

materials and machineries, and high cost of rentals and inputs due to price inflations; and (vi) Absence of a Rural Roads Asset Management System. In addition to this array of challenges associated with road maintenance, it is observed that the most prevalent type of maintenance in rural areas is emergency maintenance carried out only after the roads have been damaged by severe natural events or rendered inaccessible, which is not a sustainable practice.

6. **The GoE has devised proactive measures to enhance the sustainability and maintenance of rural roads in Ethiopia within the framework of RCAP**. A crucial aspect of this effort involves human resources development, which aims to build capacity within the Regional Road sector and strengthen the capacity of maintenance divisions in existing regions while establishing them in regions where they are currently nonexistent. Additionally, the GoE intends to introduce a web based-road asset management system that includes the establishment of an existing road inventory and assessment of road conditions. These initiatives would improve the effectiveness and efficiency of maintenance practices. Furthermore, the GoE plans to allocate 10 percent of the RCAP budget to road periodic maintenance and the procurement of necessary equipment. This is expected to reinforce the capabilities of road maintenance divisions (or SMEs) in the regions, ensuring they have adequate resources and tools required for effective and timely maintenance activities.

7. **The program's overall technical risk is considered "moderate".** Regional Road Entities (RREs) have limited experience in managing road assets, especially paved and higher standard gravel roads, as well as handling contracts for such roads. To address this, a Project Coordination Office (PCO) and steering committees will be established to provide technical support. ERA will closely collaborate with RRE, leveraging their institutional and technical capacity in project implementation, including design, procurement, supervision, and maintenance. The program's design has considered potential technical risks and implemented mitigation measures. The process DLIs are designed to mitigate procurement and fiduciary systems related risks. Furthermore, the program's institutional arrangement and capacity building efforts aim to address key technical risks. Other risk mitigation measures are outlined in the Program Action Plan. However, it is important to acknowledge the potential risks associated with the pace of capacity development within the RRE and WRO, which may not align with the capital expenditure requirements. Considering these factors, the assessed risk level is determined to be "moderate".

8. The Table 2.1 below summarizes the agreed mitigation measures against the key technical risk.

Table 2.1: Technical risk and mitigation plan

Desired results	Key technical risk	Agreed mitigation measures
Maintenance and rehabilitation of rural roads receives appropriate attention	Insufficient funding resource to maintenance Diversion of maintenance funding to construction of new woreda roads Switch from labor- based maintenance methods to machine-based methods	• Separate results area and DLI (DLI7) for rural road maintenance • Budget separation of road maintenance and new construction • A well-designed labor-based mechanisms for rural road maintenance as part of the PAP
RRE, WRO has adequate capacity for the delivery and maintenance of the road assets	Inadequate planning and poor designs leading to unsustainable impacts Poor quality of programs physical output Poor contract management Lacking sustainability of financing maintenance leading to deteriorations of constructed/maintained roads under the program.	• Program has DLIs for capacity building and institutional strengthening of RRE & WRO on rural road asset management training • The program will provide training and capacity building to microenterprises for sustainability of investment for maintenance as part of the PAP. • Given ERA's experience in road projects, they will provide the necessary technical fiduciary, procurement, and E&S support, working in collaboration with RRE /WRO

Desired results	Key technical risk	Agreed mitigation measures
		• The creation of annual budget for maintenance of woreda roads is set as a minimum condition for disbursement for all years
Timely and quality implementation of the program using optimum resources allocated	• Delay in program implementation and non-achievement of DLIs, given RRE & WRO capacities and unfamiliarity in PforR instrument. • Unavailability of manpower or competent contractors at lower levels • Limited monitoring and evaluation	• Program Implementation Manual will be prepared highlighting PforR processes • Capacity building and institutional reforms will mitigate such risks • Production of quarterly and annual reports on project performance to be submitted to the World Bank • A third-party would be commissioned to monitor performance • A standard M&E framework would be developed as part of the PAP • ERA will provide the necessary technical support • Technological innovations such as Mapillary and GEMs for project supervision and monitoring will be utilized when appropriate.
Prioritization process for investments in rural roads maintenance, rehabilitation, and new construction uses a technically rigorous system	• Prioritization system is not followed • Prioritization system is not based on objective decision making	• Program has DLI that covers road inventory and condition survey to inform decision making for planning and prioritization • The program has a verification protocol to set up a comprehensive rural road asset management database system that will help in objective decision making and the prioritization process • The program has set up a robust and equitable prioritization plan
Adoption of appropriate procurement process and methods, and contract management process	Non-achievement of basic procurement principles: value for money, economy, integrity, fit for purpose, efficiency, transparency and fairness.	• Capacity building on procurement and contract management • Annual comprehensive technical audits will also cover procurement aspect of the Program • The program will follow the Governments Anti-corruption guidelines coordinated by the Federal Institute of Anti-Corruption Commission (FIACC)

A. Expenditure Frameworks

9. **The GoE has a clear budget structure and classification for roads construction expenditures.** The government budget programming and scheduling for Federal, Regional, and Woreda roads is implemented and administered via a standard Integrated Financial Management System (IFMS) program protocol involving detail & comprehensive Capital/Recurrent budget components. This budget implementation and management are administered nationally under the Ministry of Finance's (MoF) continuous follow-up and supervision. As a result, the budgets for Federal, Regional, and Woreda Roads are comprehensively implemented and administered through the use of the IFMS Database program. This program is used for subsequent planning, performance monitoring, and evaluation.

10. **Funds in the program will be disbursed through "channel one" upon achieving and verifying results, following the World Bank's disbursement procedures and guidelines for PforRs.** The World Bank will make direct payments to the treasury account, after verifying the results output. These funds will then flow through channel one to the implementing

institutions' account at the federal level and the Regional Bureau of Finance's (BoF) account at the regional level. The Regional Bureau of Finances will distribute the funds to the accounts of the Regional Road Entities and the Woreda office of Finance (WoF). Similarly, expenditure reporting will start at the Woreda level, proceed to the Region, and ultimately reach the Ministry of Finance. Payments to contractors, suppliers, and service providers will be made directly upon submission of proper documentation and verification of project milestones. Each expenditure or budget item in the program would be assigned expenditure codes for tracking and monitoring of disbursements.

11. **The technical assessment confirms the overall expenditure framework for the program to be adequate.**

B. Monitoring and Evaluation

12. **Different agencies will have a lead role in implementation of the disbursement linked indicators of the Program**. The implementation oversight unit of the Federal PCO, under MUI, will have the overall responsibility for monitoring the program's implementation. This will be done in collaboration with inputs from ERA and the Regional Road Entities based on the agreed results framework. This implementation oversight unit will collect the monitoring and evaluation (M&E) information from the lead agencies and provide it to the Word Bank. The Regional Roads Entities, woreda road offices and the independent verification agent will also play critical roles in the process. The Federal PCO will commission a third-party organization to carry out performance evaluation. The Regional Project Coordination Office (PCO) will oversee program monitoring at the regional level, while the Woreda Road Office (WRO) will have a monitoring role within their specific jurisdiction. The monitoring and evaluation process will be complemented through the use of road imagery applications, such as Mapillary, or broader geospatial monitoring systems like GEMS, in cases where field visits are not practical or feasible.

C. Economic Analysis

Economic Evaluation Assumptions

13. **To ensure that the Project generates sufficient economic benefits that warrant the investments, a Cost Benefit Analysis was conducted for a sample of project roads using the Roads Economic Decision Model (RED) that computes annual road agency and users' costs for each project alternative over the evaluation period, comparing the project investment with the conditions without such investment**. The quantities of resources consumed, and vehicle speeds are calculated first and then multiplied by unit costs to obtain total vehicle operating costs, travel time costs and CO_2 emissions. The resources consumed, and vehicle speeds are related to traffic volume and composition, and road surface type, geometric characteristics, and roughness. Normal traffic benefits consider estimated traffic growth and generated traffic benefits and use half the associated vehicle operating and travel time cost savings, as is standard practice.

14. **The quantified net benefits computed by RED comprise changes with the Project in vehicle operating costs, travel time costs, road maintenance costs due to the road's improvements** For the RED calculations, the following assumptions were applied:

- A discount rate of 7 percent and an evaluation period of 20 years starting in 2025. All costs are stated in constant 2024 USD, using the official exchange rate (US$1 = ETB 56). The economic analysis was done considering the official exchange rate of ETB 56 and a sensitivity analysis was done using an alternative exchange rate of ETB 95 to address exchange rate distortions.
- The average daily traffic annual increase rate is 6.5 percent per year for all vehicles over the evaluation period, based on estimated GDP growth projections[27] and an assumed elasticity of 1.0.

[27] The GDP has grown on average at 8.8 percent per year from 2010 to 2022 in constant prices. The IMF predicts that the GDP will increase on average by 6.5 percent per year from 2023 to 2028.

- The social cost of carbon of US$110 per ton equivalent in 2025 increasing to US$173 per ton equivalent in 2044 is based on the high scenario for the social cost of carbon derived from the 2017 World Bank guidance note on the Shadow Price of Carbon in economic analysis[28] and adjusted to the 2023 Consumer Price Index (CPI).[29]

15. **The economic analysis was done for a sample 35 project roads located on 9 regions of Ethiopia totaling 457.2 km, considering road condition, traffic and rod works costs data.** The sample roads are either earth or paved roads in poor or very poor condition with current average travel speeds of 31 km/hour. On average, the 2023 traffic on the sample roads is 133 vehicles per day, composed of 50 percent trucks. Generated traffic was included in the analysis adopting a price elasticity of demand for transport of 0.5 corresponding on average to the generated traffic being 17 percent of the normal traffic. No diverted traffic was considered in the analysis because there are no alternative roads to the project roads. **The sample project roads will be improved or rehabilitated to a gravel standard and will receive periodic and routine maintenance during the evaluation period.** With the project, the average travel speeds will increase to an average of 50 km/hour. The total financial improvement or rehabilitation costs for the sample roads is estimated at US$18.03 million, at the official exchange of ETB 56, corresponding to an average unit cost of US$39,429 per km. The average periodic maintenance cost is US$14,350 per km. If the prevailing shadow market exchange rate of ETB 95 is considered[30], the financial improvement or rehabilitation costs are 63 percent of the costs computed using the official exchange of ETB 56.

Economic Evaluation Results

16. **The overall EIRR of the project is 47.8 percent and the NPV is US$105.53 million corresponding to an NPV/Investment Cost ratio of 5.7, at the official exchange of ETB 56. The alternative exchange of ETB 95 decreases the overall EIRR of the project to 46.0 percent, decreasing the NPV to US$61.43 million.** The economic returns indicate that the project is economically justified, with a positive NPV. Normal traffic benefits account for 93 percent of the project benefits and generated traffic benefits for 7 percent. Table 2.2 below presents the distribution of the project net benefits.

Table 2.2: Distribution of Net Benefits

Item	Net Benefits (M US$)
Capital Works	-13.9
CO2 Emissions	-0.6
Maintenance Works	-14.5
Normal Traffic	122.7
Generated Traffic	9.8
Total Project	**103.5**

17. **Sensitivity analysis was applied to the RED results to assess the impact of changes in capital costs and project benefits by increasing and decreasing them by 20 percent.** The sensitivity analysis shows that for the scenario with a 20 percent increase in construction costs, the EIRR is 41.8 percent. For the scenario with a 20 percent decrease in benefits, the EIRR is 40.6 percent. If both scenarios are combined, the EIRR is 35.4 percent. Construction costs would have to be

[28] Guidance note on shadow price of carbon in economic analysis, World Bank Group; November 2017. Available at: https://thedocs.worldbank.org/en/doc/911381516303509498-0020022018/original/2017ShadowPriceofCarbonGuidanceNoteFINALCLEARED.pdf

[29] The high scenario was used for the base case due to positive net CO_2 emission of the project. A sensitivity analysis was done considering the low scenario of social cost of carbon that is US$56 per ton equivalent in 2025 increasing to US$87 per ton equivalent in 2044. and for the scenario of not including the social cost of carbon in the analysis.

[30] According to the estimation of ERA, 10 percent of the cost of the project is paid in US dollars (mostly the trail bridges) while the remaining 90 percent (mostly labor-intensive works constructed with small tools and machineries) is paid in Ethiopian Birr. Thus, the economic impact analysis of the alternative exchange rate on the cost of the project was conducted in such a way; estimating the amount of foreign currency required to pay 90 percent of the cost project by the alternative exchange rate (US$1 = ETB 95) and remaining 10 percent by the official exchange rate (US$1 = ETB 56)

increased by 840 percent for the NPV to become zero. At an exchange rate of ETB 90, the project's EIRR is 46.1% with an NPV of US$60.71 million. At ETB 113, the EIRR is 51.9 percent with an NPV of US$63.85 million. A summary of economic analysis sensitivity results is shown Table 2.3.

Table 2.3: Sensitivity Analysis Results

Scenario	EIRR (%)	NPV (M US$)
Base	47.8%	103.53
Costs +20%	41.8%	100.74
Benefits -20%	40.6%	80.03
Costs +20%, Benefits -20%	35.4%	77.24
Low CO_2 Shadow Costs	47.9%	103.81
No CO_2 Shadow Cost	48.0%	104.08
Exchange Rate of ETB 95	46.0%	61.43
Exchange Rate of ETB 90	46.1%	60.71
Exchange Rate of ETB 113	51.9%	63.85

18. **Social Value of Carbon in Economic Analysis**. Considering the low cost of the social cost of carbon, the EIRR increases to 47.9 percent and the NPV to US$103.81 million. When not considering the social cost of carbon in the economic analysis, the EIRR increases to 48.0 percent and the NPV to US$104.08 million

GHG Accounting.

19. **GHG Accounting**. Total gross carbon dioxide (CO_2) emissions over the 20-year evaluation period are estimated at 660,235 tons under the without-project scenario and 669,196 tons under the with-project scenario, resulting in net CO_2 emissions of 8,961 tons, or 448 tons per year. The increase in CO_2 emissions is attributed to the increase in fuel consumption with the project due to the generated traffic. No diverted traffic was included in the analysis because there are no alternative roads to the project roads.

Public Sector Financing and World Bank Value Added

20. **Private sector financing is not available to undertake a local roads project of this nature in Ethiopia.** Public sector financing is the appropriate vehicle for financing the selected road works because the civil works costs cannot be recovered through tariffs due to the very low traffic of the project roads.

21. **The World Bank's role is justified because of the project's economic and social benefits.** The World Bank's engagement in Ethiopia's road sector adds value in several way, including: (i) bringing global experience on local roads investments planning; (ii) providing best practices in climate resilient transport and sustainable maintenance solutions; and (iii) helping address environmental and social standards.

ANNEX 3. FIDUCIARY SYSTEMS ASSESSMENT (SUMMARY)

SECTION 1: Conclusions

1. **Introduction**. The FSA for the program was carried out at the Federal and Regional government entities that will be implementing the Program consistent with the World Bank Policy, Directive and Fiduciary Systems Assessment Guidance Note for PforR financing.

2. **Reasonable assurance**. The fiduciary assessment for this operation concludes that the examined program financial management and procurement systems are adequate to provide reasonable assurance that the financing proceeds will be used for intended purposes, with due attention to principles of economy, efficiency, effectiveness, transparency, and accountability, once the agreed mitigation measures are in place.

3. **Risk assessment**. The overall fiduciary risk of the project is High and mitigation measures have been identified to address the key risks, as detailed in the Assessment Summary. Key fiduciary arrangements are available to ensure that resources are used for the intended purposes. In addition, the mitigating measures in the form of DLIs and PAP to address fiduciary risks are agreed. The FSA, which is part of the Program documents highlights key risks and mitigation measures.

4. **Procurement exclusion**. Procurement expenditure profiles at the decentralized level still indicate that the contract amounts of single contracts are much below the exclusion threshold under PforR operations, signifying the risk of encountering a high-value contract within the program expenditure is low. Based on data reviewed for the last three years, the maximum amount of single contract for rural roads was ETB 929.5 million (around US$20 million). However, if the project executes roads contract with asphalt concrete pavements or complex structures the possibility of having High Value Contracts above the allowable threshold is significant. It is therefore agreed that roads design and construction under the program will be limited to gravel pavements and simple structures. It is also agreed that the regional road entities will ensure contracts will not be awarded to firms that are under the World Bank's debarment and temporary suspension list by diligently checking the World Bank's website during award decisions.

SECTION 2: Scope, Fiduciary responsibilities, and Expenditure framework

5. **Scope and Boundary and Expenditure Framework**. The scope of the Fiduciary System Assessment is based on the defined boundary and Program Expenditure Framework of the Program. Clear boundary of the PforR operation including geographic coverage and expenditure framework is provided, reviewed, and agreed. The Program will also have an IPF component to provide capacity building support to program implementing entities and to support stronger agricultural market activities implemented by the MUI and ATI. The foundation of the Government Program is the Road Connectivity and Access Program (RCAP), which is part of the GoE's 10-year Transport Sector Development Plan. The total estimated cost of the RCAP program is US$774.3 M, of which the World Bank will finance US$250 million. The PforR operation will support the GoE over a period of five years. The IPF part is financed by IDA with US$50 million. Refer to technical assessment and other sections of the document on boundary and expenditure framework.

6. **Fiduciary responsibilities**. The following are the Fiduciary responsibilities of the program at all levels of government: At the Federal level, At the federal level, the MUI is the lead implementing agency and responsible for the overall day-to-day coordination and management of the program as a focal organization of the program and is responsible for strategic guidance & monitoring including Procurement. MoF is responsible for overall Financial Management of the operation. At the regional level, the Bureau of Urban Infrastructures (BUIs) are responsible for daily program coordination. Bureaus of Finances (BoFs) will have similar responsibilities as MoF in terms of financial management. Funds will not flow beyond regional level. Regional Road Entities are responsible for all procurement of goods, works and consulting services under the PforR Program. Procurement complaints will be handled by the Head of Public Bodies and the appeal system as

organized at regional level. The Regional Road Entities will be responsible for managing and coordinating the procurement and contract management of the Program through respective regional procurement legal framework. Fraud and corruption prevention and public grievance handling arrangements are reflected by the respective federal and regional proclamations and regional directives, respectively. Other Federal and Regional entities like Federal Public Procurement & Property Administration Agency (FPPPA), Federal Ethics and Anti-Corruption Commission (FEACC), Regional Ethics and Anti-Corruption Commission (REACs) and Regional Public Procurement & Property Administration Agency RPPPA have dedicated roles and responsibilities. All entities' roles and responsibilities will be highlighted in the PIM.

SECTION 3: Review of the Fiduciary system and its performance

3.1 Planning and Budgeting

7. **Adequacy of budgets**. Both at federal and regional levels, plans and budgets are prepared based on the respective financial administration proclamations, directives, and manuals of the government. The budget calendar is adhered to, with the budget for the year approved in a timely manner by parliament, and region and woreda councils. Budgetary institutions were notified promptly at federal level while there are some delays in regions assessed. The program will follow the GoE budget process. The program will be included in the national budget and proclaimed at the federal level at the MUI. For the PforR and IPF, the details of the budget process will be documented under the FM section of the PIM. The budgets will obtain World Bank's No Objections and will be proclaimed before the beginning of the year as per the requirement of the PIM. The budgets will also have a quarterly breakdown to allow for proper budget monitoring. Budgets will be controlled at transaction level and monitored at report level. The Periodic financial reports submitted to the World Bank will include a variance report for the current quarter, year to date, and project life information. IFRs will also include notes on financial management performances and explanations on material variances.

8. **Procurement planning**. The procurement entities will prepare procurement plans in line with the standard format prescribed in their regional directives. The assessment shows the milestone dates are not realistic when compared to the actual. The procurement plan is not used as an instrument for procurement progress monitoring. Some procuring entities do not submit their procurement plans within the specified time frame, creating difficulties for regulatory agencies to follow-up and plan oversight activities. Entities do not update changes in their procurement plan nor send the revised plans to the regulatory authorities. The procuring entities do not publish their procurement plans. In most cases, activities are not implemented as per the planned time frame and there is a huge difference between the actual contract amount and the cost estimate indicated in the procurement plan. Procurement plans are usually prepared as a formality for budget processing purposes rather than to use them as a management tool useful to strategize and monitor procurement activities. These limitations have a negative impact on procurement outcomes such as (a) difficulty in following up and monitoring procurement performance with a lack of milestones for the procurement activities, (b) not providing sufficient advance notice to the private sector on upcoming procurement opportunities and thus lowering the level of competition, (c) using less competitive procurement methods, and (d) creating problems for following up and preparing audit plans for the regulatory bodies.

9. **Procurement profile of the Program**. In terms of profile of procurement categories, the regional road entities procure Goods, works, consultancy services, and non-consulting services. The procurement process followed are clearly defined and each of the respective implementing regional road entities (Regional Road Bureaus, Regional Road and Logistics Bureau, Transport and Road Development Bureau) do follow the procurement in line with the procurement directives issued. All work (roads and bridges) procured follow NCB procedures in addition to restricted and direct award. Annual Procurement Expenditure by region (regional road entities) ranges from 76.7 million to 6.213 billion. The maximum contract amount executed over the last three years ranges from 41.8 million ETB which is by Sidama Region Transport and Road Development Bureau to ETB 929.5 million in Oromia Road and Logistics Bureau.

3.2 Budget Execution

3.2.1 Treasury management and funds flow.

10. **Fund flow arrangement for the operation.** A Channel One fund flow mechanism will be applied for the operation. The IDA funds of the operation will be channeled to MoF from IDA. Disbursement of the PforR funds will be made from IDA only upon achievement of the disbursement linked indicators (DLI). Once results are confirmed by the World Bank, disbursements will be made to a separate foreign currency account to be opened for this purpose by MoF. MoF could also open local currency, ETB, bank account. Federal and regional implementing entities will open separate accounts to receive the IDA funds. MoF subsequently transfers to federal level implanters and BoFs. The BoFs with then release funds to regional road entities. Funds will not flow beyond the regional level. The program is expected to have advances. Details of the key disbursement issues will be spelt out in the Disbursement and Financial Information Letter. It is important to note that although PforR operations do not link disbursements to individual expenditure transactions, the aggregate disbursements under such operations will not exceed the total expenditures of the recipient under the Program over its implementation period.

3.2.2 **Accounting and financial reporting**

11. **For the operation.** Accounting will continue to be governed by GoE's accounting policies and procedures. IFMIS will be used at the federal level while IBEX system will be used for transactions recording and reporting at regional level. For the PforR, the MoF will develop a standalone IBEX for the regions and woredas implementing the program. The government's chart of accounts is updated to accommodate the activities of the PforR. Each implementing entity will continue to account for expenditures incurred at their entity, retain documentation, and submit financial reports to the next level for consolidation. COPCD of the MoF will consolidate and submit the quarterly Interim Financial Reports (IFRs) to the World Bank within forty-five days and sixty days of the fiscal quarter end for the IPF and PforR components respectively. The formats and contents of the IFRs of the PforR and IPF were agreed with the World Bank**.**

3.2.3 **Procurement processes and procedures.**

12. **Procurement methods:** The federal government and regional governments' procurement directives strongly recommended open tendering as a default method. While assessing the actual practice, the most widely used procurement method is RFQ followed by NCB considering goods. Considering Works, the most widely used method is open NCB followed by restricted bidding. However, direct award to SOE is becoming common; for instance, in the year 2021/22 Oromia Roads and Logistics Bureau has directly awarded three contracts of value 2.8 billion ETB to two SOEs, which is a concerning practice. In addition, the past URRAP program practice was that all works and consultancy contracts were allocated to newly established entities directly which will not be repeated in the current program.

13. **Market players:** When using NCB for Goods, most bidders come from Addis Ababa followed by Regional Cities. In the case of RFQ, most bidders come from Regional Towns and Addis Ababa. In the case of Works, new firms were established by the regions during URRAP implementation. However, most of the firms have dissolved. In Oromia, the number of Construction firms established and involved in URRAP was 400. The number of consultancy firms established and operating in URRAP was 165. Of the newly established firms very few remain. In the Current RECAP program, the expected contractors and consultants are regular firms that are licensed and registered in the federal Ministry of Infrastructure and Urban Development (Construction Authority) and regional road entities. The number of registered road and general contractors in the federal Construction Authority in FY 2015 is above 2000 among which those from Grade 5-7 are more than 1300. Similarly, there are several contractors registered in the respective regions.

14. **Publication of procurement opportunities**. Most public bodies at the regional level, when using the open bids method, publish their procurement tender in either the Addis Zemen or Ethiopian Herald newspapers. The bid submission period for the national competitive bidding ranges from 15 to 30 days. The content of the invitation is different from entity to entity and many critical elements are sometimes missing, such as the quantity of items, the bidding document submission place and time, and the financing source.

15. **Bidding documents**. While bidding documents are generally prepared at regional implementing agencies, some shortcomings are identified. For example, eligibility and qualification criteria are not provided. The preparation of bidding documents is not supported by Standard Bidding Documents (SBDs), and bidding documents tend to lack complete information for potential bidders. The bidding documents only contain the list of required materials and specifications. In some of the regions, some of the important sections such as the Bid Data Sheet, Evaluation and Qualification criteria, and Special Conditions of Contract are not properly filled out. The bidding documents do not provide clear and reasonable evaluation and qualification criteria.

16. **Evaluation and Award of Contracts**. Tender evaluation in all entities is done using the service of ad-hoc evaluation committee established to evaluate bids. All entities apply preliminary, technical, and financial evaluation and award contracts to the least evaluated bidders in case of works and goods except for the Somali Region Road Bureau. The Somali Region Road Bureau uses a combined technical and financial evaluation using pre-determined technical and financial weighting and the award is to the highest combined score. However, the weighting given for technical is higher than normal and sample contracts with a range up to 65% of technical weight are noted. Allocating with such a high weight for technical in such noncomplex small contracts creates room for unethical practices and subjectivity. The technical evaluation criteria include qualification criteria like construction turnover. Use of a merit point system needs high professional and ethical standards and will be avoided in RCAP contracts. In all cases, Works and Consultancy services bids are two envelopes. In the case of goods, a one-page invitation to bid which doesn't contain most of the bid information including the evaluation criteria was considered as a bidding document. After approval by procurement endorsing committee, evaluation reports need to be further endorsed by the Regional Construction Authority before award.

3.2.4 **Contract administration**.

17. The entities have a separate unit to undertake contract administration in case of works and consultancy services. There is no alternative dispute resolving mechanism besides the judicial avenue to resolve issues arising out of the contract disputes. There are delays in payments, in the case of works and consultancy contracts, which has become normal trends recently. Delays of works contracts are normal and one of the major causes of delay is unavailability of free Right of Way (ROW) availed to contractors. Claims for additional time for ROW issues are entertained, but time related costs are not allowed.

3.3 Internal Controls

3.3.1 **Internal controls**. The PEFA notes that internal control procedures are well embedded in financial proclamation, regulation and various directives and manuals. The existing government internal control system will be applied to the operation. During implementation, the issues noted (such as risk of accurately reporting GPG program expenditures, risks around construction advances due to absence of formal advance guarantee, etc.) will be addressed as appropriate. While utilizing the PforR and IPF resources, some modifications could be made to the government procedures for certain specific aspects of the operation as will be outlined in the PIM.

3.3.2 **Internal audit**. For this operation, the internal audit function will be strengthened with regular capacity building activities. Program entities will satisfy more than 80% of the staffing plan for the unit. The Internal Audit units of implementing entities will include the program in their annual work plan and conduct a risk based financial audit on the program transactions and report the result of the audit regularly (quarterly or semi-annually). The reporting could be done separately or as part of the entity audit but with a separate section for the project. The internal audit report along with the action plan will be shared with the World Bank.

3.3.3 **Fraud and Corruption and Compliant Handling**

18. There is a robust legal framework for addressing F & C risks in Ethiopia. The principal institutions for the fight against corruption are the Federal Ethics and Anti-Corruption Commission (FEACC) established in 2001 and the newly formed Federal Attorney General enacted as per the proclamation in 2016 and the Federal Police. Respectively, the Federal Police are involved in the investigation of fraud and corruption incidents while the Federal Attorney General has the responsibility of Prosecution. The three institutions have an MOU signed jointly for FEACC to play a leading role in relation to reporting of F&C cases to bi-lateral and multi-lateral institutions that finance projects/programs.

19. Similarly, all the regions covered under this assessment, except the Southern Ethiopia Peoples Region, have proclaimed their respective regional proclamation for the establishment of Regional Ethics and Anti-Corruption Commissions (REACCs), which consistently adopt accountability and the mandates of FEACC. As stated above, the Regional Police is involved in the investigation aspect of fraud and corruption incidents while the Regional Attorney General has the responsibility of Prosecution. The effort to prevent and control fraud and corruption also has been strengthened by the issuance of a regulation that determined the structure for the placement of Ethics Liaison Units at both Federal and Regional level public institutions including RACP implementing institutions.

20. Federal and Regional Governments in the country have also established a Public Grievance Submission and management system that has been extended to cover all woredas, accountable to the regional presidents and woreda administrations. This arrangement, in general, has been established based on the respective regional directives and or proclamations that demand the establishment of a public grievance/ maladministration/ complaint management system at all levels. In addition, there exists a system that was responsible for handling procurement complaints as per the Public Procurement and Property Administrative Directive issued by MOFED (July 2005). The procedure as stated in the Public Procurement and Property Administrative Directive system in general reflected the procedure for submission, review/ investigation, management of appeal, etc.

21. In the same way, the Public Grievance Submission and Management System has been extended to cover all woredas, accountable to the regional presidents and woreda administrations. This arrangement, in general, has been established based on the respective regional directives and or proclamations that demand the establishment of a public grievance/ maladministration/ complaint management system at all levels. Moreover, the system has been extended to reach public offices at regional, zonal, and woreda levels. The arrangement in public offices (Oromia and Dire Dawa), was using focal persons- non-full-time staff and an ad hoc structure to represent and manage in-house grievances/ civil service maladministration cases.

22. The functioning of the Public grievance management system can be explained by the data received from contacted regions: a large number of public servants and the public have participated in awareness creation forums (regional level14,388; zonal 74,171; woreda 21,686; kebele level 1,888,241); the basket of complaints received included the following: City/ Urban housing; urban land; civil servant cases; farmland and investment; restitution/ compensation in the form of urban land (farmers); basic services such as health infrastructure, road construction, potable water, school construction, connection to hydropower/electric, endorsement of kebeles to higher level of the administrative structure (Woreda); endorsement of villages to kebeles, renovation of administration offices, etc. The relative performance for instance could be viewed from issues addressed in the last six months (Dire Dawa City Administration): a total of 156 public complaints have been received out of which 151 were found relevant and then 148 were addressed.

23. Thus, it will be possible to infer that the existing arrangement that reaches to the woreda level will be used to prevent and control fraud and corruption incidents, and also for the management of public grievances related to the public service delivery system. However, the system needs to be strengthened in the areas of recording, organizing, and reporting

(limitations reflected by lack of data, and incomplete information that hampered further analysis) so that it will be possible to map out major risk areas. A weak relationship with partnering institutions such as prosecution offices could also be explained by the lack of data on curative practices that were transferred to the Federal/ Regional Prosecution Office; approved EAC structures of program implementing institutions were not fully staffed which needs to be improved at least to have coverage in priority or corruption-prone sectors such as Transport /Road Desks, finance, etc. Access to fraud and corruption, and grievance handling information/offices was challenging and requires refreshment/ strengthening on MoU/ information sharing (Enforcement of the MOU signed on October 3, 2011, with the World Bank's Integrity Vice Presidency (INT)). Regions that did not yet have (Southern Ethiopia Peoples Region) the legal basis that was the basic requirement for the establishment and operation of the Ethics and Anti-Corruption Commission and Public Grievance Management system (South) need to provide the legal basis so that it will be possible to ensure their operation/ functionality and accountability.

3.4 Auditing

24. **External Audit and Oversight Functions**. Office of the Federal Auditor General (OFAG) and Office of Regional Auditors (ORAGs) are established by proclamations to conduct audits of the federal and regional governments. All visited entities were subject to an annual financial audit and the audit was up to date in all the federal public bodies as well as all the public bodies visited in Oromia and Somali regions. Based on review of the latest audit reports, all public bodies visited have prepared and given status reports/responses to the OFAG/ORAG. Internal auditors follow up implementation of audit findings though there are challenges. In addition, the auditors' conduct follows up on previous findings and status is incorporated in the reports. Most implementing entities had qualified audit opinions which mostly relate to findings of long outstanding advances. The details are discussed in the FSA. The agreed mitigating measures for the risks are included in the PAP.

25. **Program audit**. MoF will be responsible for having the financial statements audited annually and submitting the audit report to the WB for both the PforR and IPF components. The OFAGs or a delegated auditor acceptable to the WB will conduct the annual audits on the PforR and the IPF parts separately. The audits will be conducted in accordance with ToRs agreed with the World Bank for each external audit. The audit report and management letters will be submitted to the WB within six months of the end of the GoE's fiscal year. Action plans to rectify weaknesses identified in the external audit reports will be prepared and communicated to all implementing entities and submitted to World Bank. Later, a status report on the findings will also be submitted to the World Bank. Following formal receipt of the audit report, the World Bank will make it available to the public in accordance with the World Bank Policy on Access to Information. The MoF will also disclose these audit reports to the public on its website.

26. **Procurement audit**. The data received from FPPPA indicates the regional regulatory bodies have increased their procurement audit coverage since the last assessment. According FPPPA data all regions except Afar have covered at least 15 percent of woredas, albeit there are quality issues. However, the audit reports are not publicized and have limited circulation between the auditee and the BoF and there is no practice in communicating the report to the wider public and regional administration. Hence, the incentive in addressing audit findings and working on the recommendations is limited.

3.5 Fragility and Conflict on Fiduciary

27. Internal conflicts happening in recent times within the country could cause challenges in many aspects including fiduciary management of the operation. In addition, the DLIs and PAP actions including fiduciary DLIs, and PAPs may not be achieved or implemented. Furthermore, there could also be implications in respect of project implementation support and monitoring/supervision. Key risk mitigation measures include limiting fund flows at the regional level (funds are not flowing below regions); identify and design Standard Operating Procedures pre, during and post conflicts; position

resources for immediate project needs; procure equipment that support fiduciary strengthening; provide staffing and capacity building interventions regions affected by conflict; maintaining IBEX that can be accessed online from the federal level as well as taking data back-ups frequently and regularly; holding prudent amounts of cash resources is advised and quickly repatriate funds and records when conflict erupts; and ensuring post conflict readiness measures are in place and agreed before funds are sent to downwards. Conducting quick Project Restructuring and exploring the possibility of recruiting Third-party Implementation and especially Third-Party Monitoring at times of active conflict will be considered.

3.6 Fiduciary management and capacity

28. **Financial Management**. MoF will have at least two FMSs to handle both the PforR and the IPF operation. The PMU at MUI will have a dedicated finance expert for this operation. ATI will recruit an FM expert to support its finance unit to handle this project. BoF and sector bureaus will recruit additional staff as needed. Details will be specified in the PIM. Responsibilities and roles will be reviewed and updated as appropriate.

29. **Procurement**. There is a shortage of qualified staff in the regional regulatory bodies and at procurement implementing offices. Structurally the regulatory agencies have very few staff to carry out all the responsibilities of the bodies per the legal framework. Inadequate allocation of resources including budget and facilities continues to be a key factor impeding the performance of the procurement regulatory agencies at the regional level. Almost all regional procurement regulatory bodies face problems related to insufficient budget allocation and vehicle supply to travel to the woredas and carry out the procurement audit as well as follow up of the audit findings. This is directly impacting the audit coverage of the regulatory bodies at regional sector agencies and woredas.

30. **Fraud and corruption**. There is weak recording and reporting capacities at all levels of program implementing entities. Approved Ethics and Anti-Corruption structures were not staffed accordingly (e.g., Amhara and Oromiya Region). In some Regions (South and Southwest Regions) the legal basis to establish and operate Ethics and Anti-corruption Commission has not yet come into the picture. Thus, it requires to improve the staffing level of the implementing agencies, build the understanding of program requirement (application of the ACG) for the Anti-corruption institution staffs at all levels and establishing a legal base for those Region which are newly established. All these activities are listed under the PAP activities.

Section 4: Program Systems and Capacity Improvements

31. **Risk and mitigation measures.** The main weaknesses/risks identified along with the mitigation measures and timeframe are summarized in the standalone FSA.

ANNEX 4. ENVIRONMENTAL AND SOCIAL SYSTEMS ASSESSMENT (SUMMARY)

1. The following measures have been agreed to fill the gaps identified in the E&S systems of key program implementing institutions based on their experience during the UIIDP, URRAP I & II implementation, so that it can be bridged to implement the operation with strengthened capacities to manage the associated E&S risks. These include:

i. *Defining an Environmental and Social Management System at Woreda Level*: Woredas will demonstrate that they have established a functional system for environmental and social management as a minimum condition to access the grant. After the first year, implementing woredas will be required to demonstrate that all sub projects are screened for impacts and have mitigation measures, and that all subprojects have environmental approvals from the national authorities prior to initiating works. One of the primary issues impacting performance is the lack of a clear framework for environmental and social management at the woreda level. This will, for example, include an Environmental and Social Management System (ESMS) adopted at woreda level, which will outline specific roles and responsibilities for environmental and social risk screening, due diligence and regulatory requirements, consultation and coordination with other local and regional agencies, technical tools for implementation and monitoring, staffing and capacity building plan etc.

ii. For Phase I, World Bank-financed operation, involuntary displacement will be excluded and included in the next phases of government implementation plans. Hence, voluntary land donation procedures are to be prepared and endorsed by all participating woreda councils before effectiveness.

iii. At the woreda level, the Program will adopt procedures for environmental and social due diligence, which entails the systematic screening and assessment of environmental and social risks associated with the program and helps in identifying the mitigation measures required to manage any environmental and social risks, environmental and social management and monitoring plan and institutional procedures for a grievance redress system. Further, it will ensure that the screening is explicit in addressing issues related to land acquisition and other environmental adverse impacts.

iv. Relevant to the environmental, social, and cultural impacts of the Program, Environmental and Social Management System Guidelines (ESMSG) will be prepared and endorsed by participating woredas before effectiveness.

v. To ensure the protection of the health and safety of community workers participating in subproject activities as well as to prevent forced labor and child labor, the program needs to prepare an occupational health and safety (OHS) plan to be applied by program implementing agencies at regional and woreda levels. The OHS plan will also need to develop the procedures for OHS and community health and safety (CHS) that would be routinely applied for all other workers participating in subproject activities. Further, requirements of the World Bank E&S Incident Response Toolkit (ESIRT, March 2023) will be fulfilled in case of incidents/accidents. The requirements include: (i) the Program implementing institutions will promptly notify (ideally within 24 hours but no more than 48 hours) the World Bank of any incident or accident related to or having an impact on the Program, and (ii) at the World Bank's request, the Program implementing institutions will prepare a report on the incident or accident and identify any measures to address it and prevent its recurrence. The reportable incidents include fatality, lost time injury, acts of violence/protest, disease outbreaks, displacement without due process, child labor, forced labor, unexpected impacts on heritage resources, unexpected impacts on biodiversity resources, environmental pollution incident, sexual exploitation/abuse/harassment, etc. Incident reporting forms are provided as annexes to the ESSA.

vi. The Project Implementation Manual which clarifies the institutional roles and responsibilities and coordination mechanisms of MUI, Regional Roads Entities, and regional URRAP directorates for implementation of the Program will be developed before effectiveness.

vii. *Addressing Resource Constraints*: This area includes measures to overcome constraints with respect to human and budgetary resources, through the Program incentive structure, as well as capacity building and training. A capacity building and training program will be key to ensure that staff within implementing woredas to understand their roles, have the capacity to fulfill them, and clearly understand how they will be evaluated through the Annual Environment and Social Audit. The regional program coordination offices and woreda road desks are adequately staffed with environmental and social management professionals one month from effectiveness. This will, ensure the applicability of laws, guidelines, and frameworks for environmental and social management in program implementation, plan and execute capacity building trainings and workshops and supervise and monitor the overall ESMS at regions, and woredas.

viii. MUI and the regional implementing entities will ensure that: (i) E&S specialists will be recruited at the national program coordination office, (ii) E&S staff/focal persons will be included in the regional program coordination offices, (iii) E&S staff/focal persons will be deployed at each woreda to will make sure that the E&S risks are managed based on the E&S management system guidelines (ESMSG) and voluntary land donation protocol, and (iv) include E&S staff as part of project implementation teams (contractors and consultants).

ix. Each woreda will demonstrate availability of a system for management of E&S risks (as a readiness criteria) including: (i) a guideline which could be used as a basis for identification of E&S risk and for preparation of E&S instruments (which is to endorse the ESMSG and voluntary land donation procedure), and (ii) deployment of E&S staff/focal persons who will make sure that the E&S risks are managed based on the ESMSG.

x. To bridge the knowledge gap about the various guidelines and enhance their implementation in regions, zones and woredas, design capacity development and training programs, awareness raising events will be arranged for stakeholders and community members in regions, zones and woredas.

xi. There will be a strong need for capacity building to strengthen the E&S management system of program implementing institutions (i.e., MUI, Regional Roads Entities, and woredas) at national, regional, and woreda levels with qualified E&S experts, financial resource (budget for ESRM), training and provision of necessary guidelines and manuals to guide them through the E&S risk management procedures.

xii. Support and further enhancement to the capacity of the MUI, Regional Roads Entities, and woreda administrations (and program coordination offices to be established under them) to cope with its additional task of supporting RCAP and the Program.

xiii. There will be a need to provide additional support in capacity building for those regions newly joining the Phase-I RCAP program and not participating under the URRAP I & II programs.

xiv. Equal treatment of indigenous people will be ensured so that indigenous people and other vulnerable groups are not excluded from program benefits. Separate consultation shall be conducted with indigenous people and other vulnerable groups so that their concerns are not offset by the concerns of the general program beneficiaries.

xv. Women will not be excluded from benefits drawn from program implementation. To facilitate the participation of women in the construction of rural roads and increase their ability to benefit from employment opportunities, the program will consider women's socio-cultural norms regarding their suitability to undertake physical labor. Affirmative action towards increasing women`s participation in the program will be considered including employment opportunities. Women will be given targeted awareness creation campaigns on the benefits of participating in the program including employment opportunities and economic empowerment. To evaluate the benefits women obtained from the program, gender-disaggregated data will be developed for the relevant program activities.

xvi. A functional GRM system needs to be established at all programs implementing institutions in regions, zones and woredas. A well-designed complaint submission, handling and recording system is essential. The grievance redress mechanism need to have clear delegations and procedures for program implementing parties to deal with complaints and provide remedies; information will be delivered in a culturally appropriate form in local languages, ensuring that all relevant groups, including women, indigenous peoples, and vulnerable groups, are reached; a recording system to capture complaint or grievance data in order to use the data to identify problems and trends; and establish a user-friendly system for submitting complaints.

xvii. Follow up the implementation monitoring of the program by conducting independent annual environmental and social performance audits of the Program. The program will conduct annual environment and social audit starting from year II.

2. A consolidated Program Action Plan (PAP) has been developed and included in the ESSA. Further, the operation includes an environmental and social risk management Disbursement Linked Indicator DLI with a minimum condition DLI, among others:

3. *Minimum condition and DLI*:

Participating woredas need to assign environment and social experts.

ESMSG and Voluntary Land Donation Protocol is developed and endorsed by participating woredas.

(i) E&S screen of subprojects based on the ESMSG by each woreda, approved by REPA.
(ii) Preparation of subproject specific E&S instruments and approved by REPA
(iii) Approval of E&S screening reports and E&S risk managements tools by the regulatory agency
(iv) Consideration of E&S risk management issues in construction bidding documents
(v) Annual E&S auditing by the regulatory agencies and incentivizing the regulatory agency through allocation of resources.

ANNEX 5. PROGRAM ACTION PLAN

Action Description	Source	DLI #	Responsibility	Timing		Completion Measurement
• Build/ refresh the understanding of FEACC/REACs and partners on MoU, ACG and information sharing (Enforcement of MoU signed on October 3, 2011, between the Bank's Integrity Vice Presidency (INT)).	Fiduciary Systems	NA	All implementing agencies	Other	Y1-2	Training program developed and training is provided,
Apply competitive procurement procedures under the program; and apply appropriate disclosure and post-qualification criteria to award of multiple contracts to non qualified contractors	Fiduciary Systems	NA	Regional Road entities	Recurrent	Continuous	Annual procurement performance reports that include contractors data
Assign and maintain adequate number of qualified FM, Procurement, and Contract Management staff	Fiduciary Systems	NA	All implementing entities	Recurrent	Continuous	Adequate number of qualified FM, Procurement and Contract Management staff assigned, maintained and reported
Build the capacity of staff that are engaged in reporting and	Fiduciary Systems	NA	All implementing entities	Other	Year 1-2	Training program developed and training is provided, and this

follow-ups of fraud and corruption endeavors and public complaint management systems (record keeping, organizing, and reporting)						will be verified through the bi-annual report submitted by FEACC
Carry out procurement audits annually	Fiduciary Systems	NA	Regional procurement regulatory bodies	Recurrent	Yearly	Annual Procurement Audit reports
Carryout program external audit	Fiduciary Systems	NA	MoF	Recurrent	Yearly	Audit report submitted including Management Letter submitted to the World Bank
Conduct internal bi-annual audits of Regional Road Authorities (RRA) and woredas	Technical	NA	MUI	Recurrent	Semi-Annually	Audit reports submitted bi annually to the World Bank with recommendations and actions to be taken. Audits to ensure compliance with the technical, fiduciary, and E&S requirements outlined in the PIM.
Conduct Performance (value for money) Audit	Fiduciary Systems	NA	MUI/ERA	Recurrent	Yearly	Annual Performance reports
Develop and adopt the Project Implementation Manual (PIM)	Technical	NA	MUI	Other	Before Effectiveness	PIM developed and adopted

						through a formal letter from MUI.
Develop and finalize a Voluntary Land Donation management framework	Other	NA	MUI	Other	Before Effectiveness	Framework detaili ng the procedure for voluntary land donation, based on World Bank requirements and including exclusions
Develop and monitor community participation and satisfaction levels with the program	Other	NA	MUI	Recurren t	Yearly	Annual reports on community satisfaction and participation
Develop standardized rural road maintenance mechanisms (labor based, machine based, hybrid) and conduct training program for local communities, SMEs, consultant and other relevant maintenance authorities	Technical	NA	MUI	Other	Before commenceme nt of physical works	Submit to the World Bank the standards developed and reports on capacity building
Develop Terms of Reference for relevant roles including an independent verification agent responsible for verifying program results, and an agent/consultant tasked with	Technical	NA	MUI	Other	Before effectiveness	Audit and verification reports are produced and formally issued annually within 20 days of start of FY Verification and audit plan to be submitted within 2

conducting technical audits						weeks of contract signing
Enable the accounting systems in use to capture program expenditure across all levels	Fiduciary Systems	NA	All implementing entities	Other	Continuous	Accounting systems capturing program expenditure across all levels
Enhance indigenous people, women, and other vulnerable groups participation in program implementation	Environmental and Social Systems	NA	National PCO, regional PCOs, woreda road	Recurrent	Continuous	Quarterly reports on E&S
Ensure that basic FM arrangements are in place in conflict areas before transferring resource	Fiduciary Systems	NA	MoF, BoF	Other	When instances occur	Ensure that basic FM arrangements including bank service, FM staff, FM system, and working documents and facilities are in place in conflict areas before transferring resource
Establish contract management and monitoring system	Fiduciary Systems	NA	Regional Road entities	Recurrent	Continuous	Include contract performance data in the annual performance reports
Establish grievance redress mechanism (GRM)	Environmental and Social Systems	NA	National, regional/woreda bureaus	Other	Within 90 days of program effectiveness and continuous	Quarterly reports on E&S
Establish mechanism to monitor advances	Fiduciary Systems	NA	All implementing entities	Recurrent	Continuous	Mechanism to monitor advances and ensure that advances are

						provided against bank guarantee and maintained UpToDate
Improve the staffing level, (Ethic officers, Procurement focal person and Grievance handling focal person) at least to cover in priority implementing institutions at all levels	Fiduciary Systems	NA	All implementing entities	Other	Year 1	The assignment of staffs in all program implementation institutions which will be verified by FEACC's reports
Include Price Adjustment provision in all contracts	Fiduciary Systems	NA	Regional Road entities	Recurrent	Continuous	Price adjustments formula & parameters included in the contracts
Maintain separate BI code and uniform cost elements	Fiduciary Systems	NA	All entities with program expenditures	Other	Continuous	Included in the Program FM manual and application confirmed as part of quarter report
Maintain standalone system of IBEX for the program and provide access to relevant unit	Fiduciary Systems	NA	Regions	Other	Continuous	System of IBEX providing access to relevant unit such as internal audit and budget
Prepare a road safety management, awareness and monitoring plan	Other	NA	MUI	Recurrent	Yearly	Road safety plan and subsequently annual reports on road safety and incidents
Prepare annual workplan and budget	Fiduciary Systems	NA	MUI/ERA/Regional Road authorities	Recurrent	Yearly	Annual workplan and budget sufficiently

						detailed, approved; timely notified to implementing entities; and budget and budget execution information disclosed to the public
Provide annual capacity enhancement programs for regional and woreda staff, contractors, and consultants based on audit recommendations and lessons learned throughout the year	Technical	NA	MUI / ERA	Recurrent	Yearly	Capacity enhancement program and materials to be agreed with the World Bank
Provide/ update the monitoring and evaluation and reporting framework/manual to be used by all regions and Woreda for reporting on project performance. Carry out training to regions and woredas on the framework/manuals	Technical	NA	MUI	Other	Before effectiveness	Quarterly M&E reports are sent to the bank in a standardized manner for all regions
Review and audit designs to ensure adherence to	Other	NA	MUI	Other	At subproject design stage	For managing speed in market or school areas,

predefined road safety countermeasures plan or guidelines						appropriate signage, mitigation of road hazards, and safe curvatures and sight distance. Agree with World Bank on standards to be used. Submit to the World Bank an audit report.
Review and audit designs to ensure compliance with a pre-defined climate-resilient standards, on aspects drainage structures and protection against landslides and flooding	Other	NA	MUI	Other	At subproject design stage	Agree with World Bank on standards to be used. Submit to the World Bank an audit report
Strengthen/build the capacity of teams at the regional and woreda levels, including microenterprises and consultants	Technical	NA	MUI / ERA	Other	Before start of physical works And after the production of Road Asset Management Manual	Capacity building in areas such as risk assessments and management, technical expertise, road asset management, fiduciary practices, E&S management, and M&E. Administrative order issued. Capacity building plan submitted
Workers and Public Safety Management	Environmental and Social Systems	NA	National PCO, regional PCOs, woreda road	Other	During subprojects preparation and	OHS and CHS plans developed

					implementatio n	

ANNEX 6. IMPLEMENTATION SUPPORT PLAN

1. **The operation will support MUI/ PCO /Regional Roads Entities /Woreda Road Offices in managing the risks and in successfully implementing the Program to achieve results.** MUI has previous experience in managing a PforR operation but this is the first PforR in the road sector of Ethiopia. The World Bank support will be rendered to address the key technical, fiduciary, and environment and social risks identified to ensure the achievement of DLIs. Moreover, the World Bank's support will concentrate on ensuring high-quality implementation and delivery to successfully achieve the DLIs. This assistance will be provided through implementation support missions, capacity building initiatives, and the provision of technical advice to the implementing agencies.

2. **The World Bank's implementation support will broadly consist of:**

a) **Monitoring and reporting** –independent monitoring and assessment of indicators will be critical as disbursements will be based on the validity of the reported figures. Twice a year, the World Bank will visit to assess compliance with agreed actions, verify reported DLIs, review additional relevant documentation and identify enhancements for program M&E systems.

b) **Technical support** – the World Bank implementation support missions will include technical specialists to help guide the use of project criteria, audits and technical specifications, project commissioning and policy dialogue.

c) **Procuremen**t – a procurement specialist will carry out ongoing supervision during the program. The specialist will also participate in program implementation support missions and site visits, respond to just-in-time requests and provide ongoing guidance to the implementing agencies.

d) **Financial management** – during implementation, the World Bank will supervise the operation's FM arrangements and adherence to agreed FM procedures and actions. Implementation support will include capacity strengthening in procurement, financial management, governance and anti-corruption. An annual fiduciary review will be conducted for the program, aligning with the reporting requirements and processes already in place. This review will be supplemented by on-site visits by the World Bank's fiduciary staff at least twice a year. In addition, desk reviews will be done for audit, financial, procurement and any other reports received throughout the financial year. In-depth reviews may also be commissioned by the World Bank whenever deemed necessary.

e) **Environment and social** – the World Bank staff will periodically monitor environmental management systems and social measures taken to ensure compliance with agreed actions. The World Bank environmental specialists will participate in implementation support missions and site visits as deemed appropriate.

3. **The World Bank will provide implementation support during each phase of the Program**. The key elements of Program support are indicated in Table 6.1 and the skill mix requirements in Table 6.2.

Table 6.1: Key elements of Program implementation support

Period	Support Focus	Required Skills	Resources estimate
Year 1	• Completing the Project Implementation Manual • Finalizing the verification protocol • Concluding the training and capacity building plans • Implementation support and resolution of risks • Technical support and capacity building on implementation of PAP and development of various standards • Technical and implementation support on addressing environmental and social issues at local levels including GRM, OHS and GBV • Support on procurement of works	• Technical • Procurement • Financial management • Social and environmental • Institutional and Capacity building • M &E	95 staff weeks
Year 2 to Year 5	• Implementation support with main focus on resolution of critical bottle necks and risks	• Technical (Engineering, road safety and climate)	65 staff weeks per annum

	• Implementation support to operationalize OCHS, GRM, SEA, GBV prevention. • Capacity building activities as identified. • Evaluating the progress of implementation • Providing support and resolving identified risks during implementation • Support on implementation of PAP • Monitoring adherence to the project implementation manual • Assessing the impact of the program • Technical support to achieve DLIs	• Procurement • Financial management • Social and environmental • Institutional and Capacity building • M &E • legal	
Throughout project implementa tion	• Light implementation support • Two implementation support missions and mid-term review • Facilitating institutional development and capacity building of implementing agencies • Providing monitoring and supervision support to ensure high-quality performance. • Conducting monitoring activities to identify and address any potential risks.	• Technical (Engineering) • Social and environmental Institutional and Capacity building	270 staff weeks

Table 6.2: Skills Mix requirements for Implementation Support

Skills Needed	Number of Staff-weeks	Number of Trips
Technical and project management team	150	80
Monitoring and Evaluation	48	32
Social and Environmental including GBV specialist	120	60
Procurement	40	20
Financial management	40	20
Institutional and Capacity building	12	12
Economist	4	-
Legal	16	6
Total	**430**	**230**

ANNEX 7. IMPLEMENTATION ARRANGEMENTS

The PforR (Resilient Rural Connectivity Infrastructure)

1. **Program implementation will be anchored in multi-level implementation arrangements at Federal, Regional and Woreda levels that will ensure program oversight and coordination across sectors and different levels of government**. MUI will be the responsible sector Ministry to own, lead and coordinate the program at the Federal level and the Regional Roads Entities will take the same responsibility at the regional level.

2. **MUI will be the legal entity with the established Federal RCAP Coordination Office to lead the program.** The federal RCAP PCO will provide coordination, instructions, and supervision of program activities at federal level and will be responsible for overall coordination, reporting, and communication with the World Bank. At the regional levels, there will be dedicated Project Management Offices (PMO) to coordinate the implementation of the program. The RCAP regional coordination offices (thirteen RCAP coordination offices) and contractors and consultants organized particularly for this purpose are responsible for day-to-day program implementation in their respective jurisdictions including project management, procurement (as appropriate) and Monitoring and Reporting. In addition to the Regional RCAP PCOs, depending on their capacity, the Woreda Road Offices can be given responsibility for day-to-day program implementation in their respective jurisdictions, including project management, E&S, monitoring and reporting.

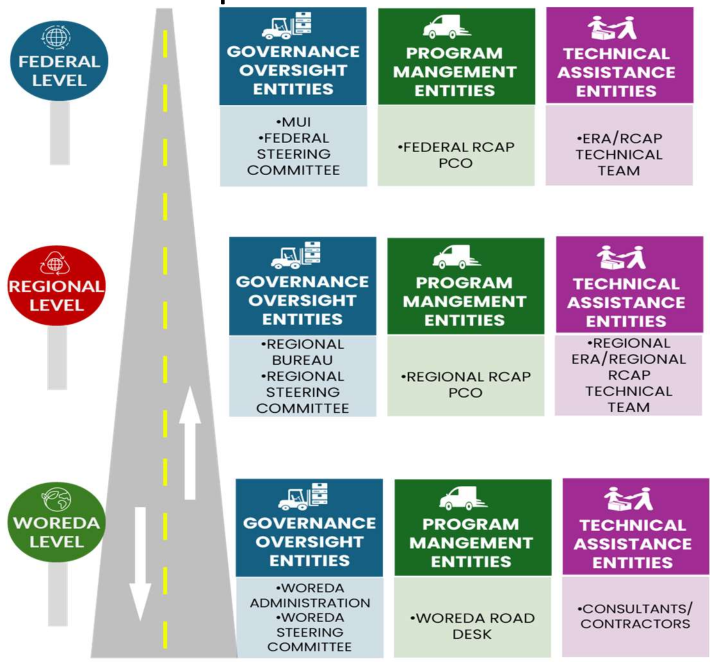
3. **The Federal RCAP Coordination Office is comprised of two teams**: (i) Technical Team Coordinator; and (ii) Program Administration Team Coordinator. The Technical Team is responsible for overseeing the implementation of the program and providing technical support and building capacity at regional and woreda levels. The Program Administration Team is mainly concerned with monitoring and evaluation works, monitoring of physical and financial plan and accomplishment, community participation, job creation, and relevant data and reporting.

4. **ERA will provide technical support and technical specifications/manuals**. ERA has gained experience on technical, fiduciary and E&S management while handling several World Bank-financed projects and will provide technical support as required and that ERA has developed during similar programs in the past (URRAP), national standards/specifications/guidelines and manuals for rural roads that have been widely distributed where URRAP was under implementation. ERA has documented experience on the URRAP program.

5. **Overall strategic guidance is provided by a steering committee chaired by MUI.** The Committee is comprised of MUI, MOA, Ministry of Finance, Ministry of Planning and Development, Ministry of Education, Ethiopian Construction Authority, Construction Management Institute, Ministry of Health, Ministry of Water and Energy, Ministry of Labor and Skills, Ministry of Irrigation & Lowlands, Ethiopian Roads Administration, Agricultural Transformation Institute and the Program Coordination Office under MUI. A similar steering committee will be established at the regional level as well. MUI will organize and chair quarterly progress meetings with all stakeholders.

6. **Overall Implementation Model:** The overall institutional model is presented in the form of a two-way matrix mapping the administrative levels versus critical roles in implementation. The critical roles in implementation are bundled into three areas: (i) governance and oversight roles; (ii) coordination and project management roles; and (iii) technical support roles. The administrative levels are federal, regional and woreda. The overall implementation model is depicted in figure 7.1. The Ministry of Urban and Infrastructure Development is the apex lead ministry responsible for sector policy, oversight, leadership, monitoring and regulation. The Ethiopian Roads Authority, which is the implementing agency for the project is mandated with overall roads network planning and federal roads development, while the lower level of roads network is decentralized. The Office of the Road Fund manages the funds for road maintenance which are collected through a fuel levy. The National Road Safety Council (NRSC) reporting to MoTL is mandated with road safety responsibility. The roads network planning and roads development is hierarchically devolved to the administrative levels of the country as summarized in Table 7.1.

Figure-7.1: Overall Implementation Model for Rural Road Sector



The IPF Component, (Window 1: E-market place platform)

7. The Development and implementation of the E-Market platform will be handled by the Agricultural Transformation Institute (ATI) building on lessons learned and existing initiatives of the ATI, MoA, and other digital agriculture initiatives of the World Bank. This would avoid duplicating efforts and ensure that the E-market platform is aligned with the broader digital agriculture strategy. The E-market platform development and pilot will be implemented under the NMIS project which currently has extensive experience in collecting weekly market data on 19 commodities from 311 marketplaces and disseminates the validated information to all users across the country in three local languages. ATI will, furthermore, implement a comprehensive strategy to ensure the sustainability of the outcomes by the long-term owners through organizing different capacity-building sessions, engaging all in the process of implementations along its value chain and creating an enabling environment to maintain and continue implementations of the lessons.

Table 7.1: Devolution of Planning and development of Roads Network in Ethiopia

Administrative Level	Roads Network	Responsible Agency
Federal	Federal link roads and express ways	ERA
Regional	Regional roads	Regional Road Entities
Woreda	Woreda roads	Woreda roads office

Table 7.2: Implementation Model for e-market Platform

Administrative levels	Governing and Oversight entities	Project Management entities	Technically supporting entities
Federal	• Agriculture Transformation Institute	NMIS Project-Federal Project Management Unit	Working groups from partners and donors
Woreda	Development Agent	Extension workers	

ANNEX 8. CLIMATE CHANGE ADAPTATION AND MITIGATION CO- BENEFITS

Climate and Natural Hazard Risk Assessment

1. Ethiopia is ranked as highly vulnerable to climate change in the ND-GAIN Vulnerability Index (161 out of 185 countries), denoting high exposure, sensitivity, and low ability to adapt to the negative impacts of climate change. Ethiopia has high risk of hydro-meteorological hazards and natural disasters such as floods, drought, landslides, extreme heat, and wildfire. Land degradation and soil erosion is exacerbated by recurrent floods and droughts. ThinkHazard lists volcano eruptions as presenting high risk and earthquakes medium risk. Climate projections show a continued increase in temperature and increased rainfall variability that are expected to increase the frequency and intensity of floods, water scarcity and drought in some areas of the country, land degradation and soil erosion. Average temperatures have increased by 1°C since 1960, and the average number of hot days per year increased by 20% between 1960 and 2003. Climate projections show an increase in average temperature between 0.6°C-1.5°C between 2020-2039 and 1.2°C-2.6°C between 2040 and 2059. Climate change projections indicate increased geographic rainfall variability. Floods, landslides, and extreme temperatures were identified as the main risk for the rural road, bridges, and market infrastructure. Flash floods and riverine floods regularly cause damage to crops and to markets, roads, drainage and bridge infrastructure. Rural communities are isolated permanently due to topography or become disconnected during the rainy season, as river crossings or roads become impassable, impairing access to basic social services and to markets. Unpredictable rainfall patterns affect water availability, disrupt logistics and agriculture value chains, cause delays and product losses. Temperature variations of 2°C can result in the expansion and contraction of bridge materials with additional strain on expansion joints. Increasing temperatures can cause more frequent heat waves, increasing the risk of wildfires, insects, pathogens, and other pests affecting agriculture value chains. This can result in lower harvest volumes and increase losses of agriculture produce. Increasing temperatures can also cause a rise in refrigeration needs. Climate change and the resulting natural hazards are expected to impact rural roads connectivity, disconnecting communities, and causing delays to access basic services and markets, impact agri-food value chains due to delays in food transport to markets, and increases in food spoilage, adding to the risk of food insecurity and to climate vulnerability of communities.

Integrating Climate Adaptation and Mitigation in the Operation Design

2. The operation sets as a core objective enhancing the climate resilience of rural roads and bridges and agriculture value chains, and of the communities served. Interventions to be financed by the Operation are identified based on their contribution to climate resilience through the five pillars of the infrastructure management lifecycle: (i) Systems Planning, by integrating climate risks considerations in the identification, planning, implementation and management of regional and woreda roads; (ii) Engineering and Design, by using climate resilient design standards in the design and upgrading/construction of rural roads, trail bridges and pedestrian access roads; (iii) Operations and Maintenance through updating O&M protocols to allow for the provision of more frequent and targeted routine and periodic maintenance considerate of climate risks; (iv) Contingency Programming by including in digital market platforms the capacity to provide climate risk alerts, emergency preparedness awareness, information on response an recovery plans; and (v) Institutional Adaptive Capacity by strengthening rural road asset management systems incorporating climate risk considerations and strengthening maintenance practices, to better reflect needs under a changing climate. The Program identified climate mitigation opportunities through the Avoid-Shift-Improve framework by reducing agriculture produce and food losses and planting trees, promoting low carbon modes like non-motorized transport and renewable energy; and improving energy efficiency of buildings and equipment. The following table provides overview of the climate adaptation and mitigation measures:

Result Area 1: Institutional Development and Capacity Building
Adaptation: DLI 1, DLI 2 – Institutional development and capacity building activities required for the successful implementation of the PforR. **DLI 3** – Institutional development and capacity building activities required for the successful implementation of the PforR. Enhanced institutional capacity through the development of a Rural Road Asset Management Framework and deployment of training

activities for Regional Roads Entities and Woreda Roads Offices. Development of a comprehensive road inventory, capturing asset conditions; GIS mapping of road infrastructure and natural hazards; climate risk assessment, road network criticality and climate vulnerability analysis; identification and evaluation of climate resilience measures; investment prioritization considerate of climate risks; deployment of Ethiopia's climate resilient road construction/upgrading and maintenance standards.
Result Area 2: Climate Resilient Rural Accessibility
Adaptation: DLI 5 – **(A)** Upgrading/construction of woreda roads to climate resilient standards, to link rural kebele centers to the nearest main roads and facilitate the transport of agriculture products from farms to markets year-round and in all weather conditions. Eighty percent of the finance will be allocated to upgrading of existing rural roads and 20% allocated to construction of new roads. This will contribute to addressing food insecurity issues, food spoilage, and enhance the resilience of rural communities since current roads are impassable during the rainy season. The locations of works will be selected considering disaster risks. To reduce risks associated with floods, roads will be constructure to climate resilient standards, with additional cross and side drainage, with adjustment in the vertical alignment of the road, with higher hydraulic clearances for culverts, and will use erosion protection. Counter measures against damage from extreme heat include the use of appropriate layer coefficients, revised pavement thickness, weather-resistant pavement surfacing materials and asphalt mix designs. Additional resilience measures to be deployed include: (a) The deployment of water balancing ponds under a Roads for Water concept. This design approach will protect rural road assets and will be used to store rainwater to be available for irrigation during the dry season, protecting vulnerable livelihoods from adverse effects of climate change. (b) Tree and grass planting for roadway reserve protection and cooling. All slopes will be grassed and there will be drainage chutes to allow for controlled water discharge over the slopes. (c) Retaining walls and gabions will be installed as necessary to avoid erosion. **(B)** – Construction of pedestrian trail bridges and pedestrian access roads, to climate resilient standards, for areas with lack of access to basic services and markets. Improved access reduces isolation of communities impacted by extreme weather and climate change. Bridges will use expansion joints and account for the temperature increment at the design phase. **(C)** – Construction of special structures (drainage - pipe culverts, box culverts) to climate resilient standards to improve capacity to handle excess rainwater runoff. Construction of crossing infrastructure in lowlands for pastoralist communities with crossing problems during the rainy season, where floods disrupt access to pastures, basic services, and markets (e.g.: crossings over gullies created by floods). **(D)** – E&S work required for the implementation of PforR. **Mitigation: DLI 5** – Woreda roads upgraded/built with sidewalks, pedestrian crossings, traffic calming measures, streetlights powered by solar energy, to promote the use of non-motorized transport (walking and cycling). Tree and grass planting provide GHG emissions capture and sequestration. DLI 5 enhances connectivity and access to basic services and markets year-round, reducing transport times, contributing to the reduction in food spoilage and losses, reducing food waste, which in turn contribute to a reduction in GHG emissions from the agriculture sector. The construction of pedestrian trail bridges and pedestrian access roads supports non-motorized transport. Improvements in connectivity reduce food losses and waste and associated GHG emissions.
Result Area 3: Longevity and Sustainability of Investments
Adaptation: DLI 7 – Revised operations and maintenance protocols considering climate risks, resulting in increased frequency of asset inspections and periodic maintenance of Woreda roads to keep road passable year-round, including during the rainy season and after extreme weather events. This is a critical measure to reduce the vulnerability of rural road and bridge assets, extend the life of assets, and to reduce damage in the event of extreme weather and natural hazards, such as landslides and floods.

The IPF component finances climate adaptation and GHG emissions mitigation measures under each window:

Window 1: E-market place Platform and Capacity Building
Adaptation: Development and deployment of an E-Market Place Platform that connects farmers with small traders will reduce food losses, and provide information on climate risks, emergency preparedness, response and recovery frameworks, and contingency plans.
Window 2: Capacity Building and Support for Program Management
Adaptation and Mitigation: Strengthening the capacity of the Ministry of Urban and Infrastructure (MUI) to manage and coordinate the operation and to provide support to the regions and woredas in the implementation of the operation.

ANNEX 9. INVESTMENT PROJECT FINANCING WINDOW

I. Financial management under the IPF window

1. A financial management assessment was conducted in accordance with the WB Policy, Directive and Guidance note on IPFs. The assessment was conducted on the MoF, MUI and ATI which are expected to be the implementing entities of the IPF component of the operation. The objective of the assessment was to determine whether the implementing entities have acceptable financial management arrangements to ensure that: (a) funds are used only for the intended purposes in an efficient and economical way, (b) accurate, reliable, and timely periodic financial reports are produced, and (c) the implementing entities assets are safeguarded. The financial management risk for the IPF is Substantial. The project will inherit the various strengths of the country's PFM system. All three entities have experience in managing World Bank-financed operations and the financial management performance was found to be robust, but the main drawbacks noted are weak internal audit function, Inadequate manpower at finance sections and inadequate capacity-building activities. Mitigating measures agreed will help reduce the risk of the project once implemented.

2. **FM arrangements**. The project's overall financial management responsibility, including resource release, reporting consolidation and auditing, will lie with the MoF. MUI will lead the preparation and consolidation of the project budget and submit the annual work plan and budget (AWPB) to the World Bank for "No Objection". The approved project budget will be included as part of the MUI and ATI entity budget and proclaimed at the federal level. Any change to the approved budget will need to get the World Bank's prior approval before proceeding with implementation. The regular budget execution reports, the interim financial reports, and progress reports would be used for project budget monitoring. The existing accounting systems of the entities will be used, and additional FM experts will be recruited to assist in managing the project funds. In addition, each entity will review their staffing capacity and if deemed necessary will explore the possibility of recruiting an additional accountant during implementation. The internal audit departments/directorates or unit of MoF, MUI and ATI will include this Project in their work program and conduct audit accordingly. Both MUI and ATI will prepare and submit quarterly unaudited IFRs for the Project within thirty days of the end of the quarter to the MoF. MoF will consolidate and submit the project IFR within forty-five days of the end of the fiscal quarter to the World Bank. The contents and formats of the IFR were agreed with the World Bank. MoF will have the project accounts audited annually by an independent external auditor acceptable to the World Bank and will submit the annual external auditor's report within six months of the fiscal year end. In accordance with the World Bank's policies, the World Bank requires that the recipient disclose the audited financial statements in a manner acceptable to the World Bank. Following the World Bank's formal receipt of these statements from the recipient, the World Bank makes them available to the public in accordance with the World Bank Policy on Access to Information.

3. **Disbursement arrangements**. The Channel One fund flow mechanism will be used for the IPF where IDA funds will be disbursed to MoF to a segregated USD account that will be opened at NBE and managed by MoF-COPCD. All disbursement Methods are available to the project i.e., the project may follow one or a combination of the following disbursement methods: advances to DA, reimbursements, direct payment, and special commitments. For advance to the DA and subsequent replenishment and the reimbursement methods, the project will use report-based disbursement methods. Further details about disbursements to the project will be included in the Disbursement and Financial Information Letter (DFIL). Initial advance will be made based on a six-month forecast prepared from the approved AWPB. Further replenishments will be made upon submission of the quarterly financial reports (IFRs). The IFRs will be used to document or settle past advances to the designated account and also request future resources using their respective cash forecast statements. The project's eligible expenditures are costs incurred for activities agreed upon and included in the Financing

Agreement and as included in the approved AWPB. MUI and ATI will open a segregated account to receive project funds from MoF based on the approved AWPB.

4. It is the conclusion of the FM assessment that the project's financial management arrangements meet the World Bank's minimum requirements under Bank Policy and Bank Directive on the IPF and FM Manual**.**

II. PROCUREMENT MANAGEMENT FOR IPF WINDOW

5. **Procurement rules and procedures** will be carried out in line with the World Bank's Procurement Regulations for IPF Borrowers, dated September 2023 (amended from time to time) (Procurement Regulations); the Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated October 15, 2006 and revised in January 2011 and as of July 1, 2016; and any other provisions stipulated in the Financing Agreement. The World Bank's Standard Procurement Documents (SPDs) will be used for all international and national competitive procurements.

6. **The PP**, as agreed between the World Bank and the recipient, will specify the procurement methods and their applicable thresholds, as well as activities that will be subject to the World Bank review. The implementing agency will submit the PP through STEP, and it will be disclosed to the public once the PP is approved. The PP will be revised as needed to reflect the project implementation needs.

7. **The PPSD** will be prepared by recipient and will include market conditions, risks, and corresponding market approaches for identified procurable items resulting in the first 18 months of the PP. **Institutional arrangements.** The ATI and MUI will be responsible for procurement implementation. The decision-making process will utilize the internal institutional structure of each institution, including the Tender Endorsing Committees. The ATI and MUI will recruit and assign one procurement specialist with experience in World Bank-financed projects and one contract management officer to coordinate the procurement activities under the IPF component.

8. **Procurement risk assessment has been carried out by the World Bank** in accordance with the World Bank Procurement Risk Assessment and Management System, and currently, the procurement risk is substantial. Both the ATI and MUI have prior experience in managing procurement activities under World Bank-financed projects. The main risks are: (a) unavailability of procurement staff with experience in World Bank-financed projects and possible inability to retain such staff because of low levels of salaries imposed by the MoF; (b) limited technical capacity to lead, manage, prepare, and evaluate technical aspects of information systems-related procurement activities, including possible delays in the preparation of bid documents; (c) limitations in producing proper evaluation reports backed with due diligence; (d) the national Standard Bidding Documents (SBDs) not updated with requirements for social, environmental, health, safety, and sexual exploitation risks; (e) challenges in translating project scope into discreet procurable activities; and (f) poor contract management systems with potential time and cost overruns and poor-quality deliverables.

9. **To mitigate the risks, the following measures have been agreed:** (a) closely monitor planned procurements; (b) recruit a minimum of one procurement specialist at the ATI and MUI; (c) ensure goods delivery, inspection, and receipt documents are issued on time and copies are uploaded in STEP at the contract completion road map stage; (d) ensure relevant staff undertake training on the World Bank's procurement procedures; (e) use the World Bank's SPDs for national market approach procurements as appropriate; and (f) establish a contract monitoring system, hire a qualified contract management officer, and deliver monitoring reports regularly.

10. **The overall procurement risk rating is Substantial.** Once the procurement mitigation actions have been implemented, the residual risk will allow the project procurement risk to be revised to Moderate.

11. **STEP will be used** to prepare, clear, track, and update PPs and conduct all procurement transactions. All prior- and post-review procurements will need to be uploaded to STEP. Those not uploaded in STEP will not be eligible for project financing. The STEP system will also be used for handling and closure of all procurement complaints. NIDP will assign specific staff as contract managers in STEP's Contracts Management Module. Regardless of value, all consultancies will be prior reviewed.

12. **National procurement arrangements.** The country's procurement procedures may be used for the domestic market. When the recipient uses its own national open competitive procurement procedures as outlined in the Public Procurement and Property Administration Proclamation No. 649/2009, such arrangements will be subject to the provisions of paragraph 5.4 of the Procurement Regulations. However, since the national SBDs are not yet modified to reflect social, environmental, health, safety, and sexual exploitation requirements, the project will use the World Bank's appropriate SPDs for national open market approach procurement activities.

13. **Implementation support and World Bank reviews.** The World Bank will review contracts based on the risk and complexity of activity, which will be indicated in the PP in STEP. The prior-review contracts will be updated in the PP as necessary during implementation, based on the procurement capacity assessment. The World Bank will carry out post reviews of procurement activities to determine whether they comply with the requirements of the Legal Agreement.

14. **Selection methods.** The project will utilize available selection methods and approaches in the World Bank Procurement Regulations. The selection methods and World Bank review thresholds will be determined in the PPSD and PPs in STEP. The thresholds will be determined based on activity risks and whether an activity will be prior reviewed or post reviewed will be reflected in STEP.