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Report No: PAD2937

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR 102.7 MILLION
(US\$140.0 MILLION EQUIVALENT)

TO THE

REPUBLIC OF MADAGASCAR

FOR THE

CONNECTIVITY FOR RURAL LIVELIHOOD IMPROVEMENT PROJECT

October 25, 2019

Transport Global Practice
Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective September 30, 2019)

Currency Unit = Malagasy Ariary

SDR 0.7335 = US\$1

US\$1.363 = SDR 1

FISCAL YEAR

January 1 - December 31

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ABBREVIATIONS AND ACRONYMS

AC	Asphalt Concrete
AfDB	African Development Bank
ARM	Road Authority of Madagascar (<i>Autorité Routière de Madagascar</i>)
ARTEC	Regulation Authority of Communication Technology (<i>Autorité de Régulation des Technologies de Communication</i>)
AWPs&B	Annual Work Plan and Budget
BCM	Central Bank of Madagascar (<i>Banque Centrale de Madagascar</i>)
CIP	Communications Infrastructure Project
COA	Board of Directors and Orientation (<i>Conseil d’Orientation et d’Administration</i>)
COER	Road Maintenance Orientation Board (<i>Conseil d’Orientation de l’Entretien Routier</i>)
CPF	Country Partnership Framework
DBST	Double Bituminous Surface Treatment
DE4A	Digital Economy Moonshot for Africa
DGTP	Director General of Public Works (<i>Direction Générale des Travaux Publics</i>)
DPO	Development Policy Operation
EASSy	East Africa Submarine Cable System
EIB	European Investment Bank
ESIA	Environmental and Social Impact Assessment
ESHS	Environmental, Social, Health, and Safety
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EU	European Union
FER	Road Maintenance Fund (<i>Fonds d’Entretien Routier</i>)
FM	Financial Management
GBV	Gender-based Violence
GHG	Greenhouse Gas
GoM	Government of Madagascar
GPN	Good Practice Note
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
GRSF	Global Road Safety Facility
GSMA	Global System for Mobile Communications Association
HDM	Highway Development and Management
HIV	Human Immunodeficiency Virus
IA	Implementing Agency
IAS	International Accounting Standards
ICT	Information and Communication Technology
IDA	International Development Association

IFR	Implementation Financial Report
IFRS	International Financial Reporting Standards
IG	General Inspectorate
IGPCP	Integrated Growth Poles and Corridor Project
IPF	Investment Project Financing
IRR	Internal Rate of Return
M&E	Monitoring and Evaluation
MAHTP	Ministry of Territorial Planning, Housing, and Public Works (<i>Ministère de l'Aménagement du Territoire, de l'Habitat et des Travaux Publics</i>)
MEF	Ministry of Economy and Finance (<i>Ministère de l'Économie et des Finances</i>)
MTTM	Ministry of Transport, Tourism, and Meteorology (<i>Ministère des Transports, du Tourisme, et de la Météorologie</i>)
NGO	Nongovernmental Organization
NPV	Net Present Value
OP/BP	Operational Policy/Bank Procedure
PC	Project Coordinator
PCC	Particular Conditions of Contract
PCU	Project Coordination and Implementation Unit
PDO	Project Development Objective
PFS	Project Financial Statements
PIM	Project Implementation Manual
PMC	Project Management Consultancy
PPA	Project Preparation Advance
PPSD	Project Procurement Strategy for Development
RA	Road Agency (<i>Agence Routière de Madagascar</i>)
RADMS	Road Accident Data Management System
RAI	Rural Access Index
RAP	Resettlement Action Plan
RC	Communal Road (<i>Route Communales</i>)
RF	Road Fund (<i>Fonds Routier</i>)
RN	National Road (<i>Route Nationale</i>)
RP	Provincial Road (<i>Route Provinciales</i>)
RPF	Resettlement Policy Framework
SBD	Standard Bidding Document
SEA	Sexual Exploitation and Abuse
SC	Steering Committee
SDR	Special Drawing Rights
STEP	Systematic Tracking of Exchanges in Procurement
TC	Technical Committee
ToR	Terms of Reference
UNFPA	United Nations Population Fund
WHO	World Health Organization



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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Madagascar	Connectivity for Rural Livelihood Improvement Project	
Project ID	Financing Instrument	Environmental Assessment Category
P166526	Investment Project Financing	A-Full Assessment

Financing & Implementation Modalities

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input checked="" type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Disbursement-linked Indicators (DLIs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
15-Nov-2019	31-Mar-2025

Bank/IFC Collaboration

No

Proposed Development Objective(s)

The Project Development Objective is to enhance transport connectivity in selected rural areas to improve access to social and economic opportunities of communities.

Components

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



Rehabilitation of Secondary Roads in Priority Regions	108.00
Improvement of Provincial, Communal, and Unclassified Roads in Priority Regions	20.00
Promotion of Digital Solutions in targeted Rural Communities	4.00
Capacity Building and Project Management	8.00
Contingency Emergency Response Component (CERC)	0.00

Organizations

Borrower: REPUBLIC OF MADAGASCAR

Implementing Agency: Ministère de l'Aménagement du Territoire, de l'Habitat, et des Travaux Publics

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	140.00
Total Financing	140.00
of which IBRD/IDA	140.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	140.00
IDA Credit	140.00

IDA Resources (in US\$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Madagascar	140.00	0.00	0.00	140.00
National PBA	140.00	0.00	0.00	140.00
Total	140.00	0.00	0.00	140.00



Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2020	2021	2022	2023	2024	2025
Annual	5.20	17.74	28.46	31.05	35.44	22.10
Cumulative	5.20	22.94	51.40	82.45	117.90	140.00

INSTITUTIONAL DATA

Practice Area (Lead)

Transport

Contributing Practice Areas

Climate Change and Disaster Screening

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

Gender Tag

Does the project plan to undertake any of the following?

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

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

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



7. Environment and Social	● High
8. Stakeholders	● Moderate
9. Other	
10. Overall	● Substantial

COMPLIANCE

Policy

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

Yes No

Does the project require any waivers of Bank policies?

Yes No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Performance Standards for Private Sector Activities OP/BP 4.03		✓
Natural Habitats OP/BP 4.04	✓	
Forests OP/BP 4.36	✓	
Pest Management OP 4.09		✓
Physical Cultural Resources OP/BP 4.11	✓	
Indigenous Peoples OP/BP 4.10		✓
Involuntary Resettlement OP/BP 4.12	✓	
Safety of Dams OP/BP 4.37		✓
Projects on International Waterways OP/BP 7.50		✓
Projects in Disputed Areas OP/BP 7.60		✓

Legal Covenants

Sections and Description

Schedule 2, Section IV.

The Recipient shall ensure that adequate counterpart funding for road maintenance to support the sustainability of



investments made under Part 1 of the Project is made available, in a prompt and timely manner and, in this regard, the Recipient shall ensure that adequate provision for such costs is included in its budget on annual basis.

Sections and Description

Schedule 2, Section IV.

The Recipient shall ensure that a road safety assessment is carried out for the civil works under Part 1 the Project and, thereafter, promptly and adequately implement any recommendations resulting from said assessment in the implementation of Part 1 of the Project, all in a manner acceptable to the Association.

Sections and Description

Schedule 2, Section I, A, 1.

The Recipient shall maintain, throughout Project implementation, the PCU within the MAHTP, composed of key staff, with qualifications and experience and under terms of reference acceptable to the Association, including one (1) Project coordinator, one (1) procurement officer, one (1) procurement assistant, one (1) financial management officer, one (1) accountant, one (1) internal auditor, one (1) environmental safeguards specialist, one (1) GBV specialist, one (1) social safeguards specialist and any other specialists as may have been agreed with the Association, as further detailed in the PIM. The PCU shall be responsible for day-to-day implementation of the Project, including, inter alia, managing and supervising the technical, fiduciary, safeguards (social, environmental and health and safety), gender, and monitoring and evaluation aspects of the Project, as further detailed in the PIM.

Sections and Description

Schedule 2, Section I, A, 2.

The Recipient shall establish, and thereafter maintain, throughout Project implementation, the technical committee (TC), which shall be headed by the Project coordinator and shall include designated technical representatives of the MAHTP, Directorate of Public Debt of Ministry of Economy and Finance, the RA, the RF, the Directorate for Land Transport of the MTM, the Ministry of Agriculture, the Priority Regions and any other designated technical representatives, as further detailed in the PIM. The TC shall be responsible for the providing technical oversight and reviewing the annual work plans and budget, as further detailed in the PIM.

Sections and Description

Schedule 2, Section I, A, 3.

The Recipient shall establish, and thereafter maintain, throughout Project implementation, the PSC, which shall be headed by high level representatives of the MAHTP and shall also include, inter alia, high level representatives of relevant ministries and public institutions, as further detailed in the PIM. The PSC shall be responsible for providing overall strategic guidance and oversight and inter-ministerial coordination for the implementation of the Project.

Sections and Description

Schedule 2, Section I, D, 7.

No later than three months from Effectiveness, the Recipient shall appoint a dedicated NGO or firm and, thereafter maintain, throughout Project implementation, to establish and support a grievance and feedback mechanism, in form and substance satisfactory to the Association, to hear and determine fairly and in good faith all complaints raised in relation to the Project, and take all measures necessary to publicize the availability of such mechanism and implement the determinations made by such mechanism in a manner satisfactory to the Association.



Sections and Description

Schedule 2, Section I, D, 9.

No later than three months after Effectiveness, and for purposes of preventing, mitigating and monitoring Project-related GBV risks, the Recipient shall engage specialized NGOs or firms working in the Recipient’s territory on GBV matters, under terms of reference, qualifications and experience satisfactory to the Association.

Sections and Description

Schedule 2, Section I, D, 10.

No later than three months after Effectiveness, the Recipient shall appoint and, thereafter, maintain, throughout Project implementation, two GBV service providers, under terms of reference and with experience and qualifications, acceptable to the Bank.

Conditions

Type	Description
Effectiveness	The Project Implementation Manual has been adopted by the Recipient, in form and substance acceptable to the Association.
Effectiveness	The establishment of the PCU, under terms of reference acceptable to the Association, including through the appointment of a financial management officer, a procurement officer, a social safeguards specialist, a GBV specialist and an environmental safeguards specialist, all of which with qualifications and experience acceptable to the Association.



I. STRATEGIC CONTEXT

A. Country Context

1. **Madagascar is the fourth largest island in the world with an area of approximately 578,000 km² and a rapidly increasing population of 25.68 million people¹.** The country is divided into 22 regions comprising 114 districts. Districts in turn are divided into communes. Madagascar has five geographical areas: the east coast characterized by narrow escarpments where the island's remaining tropical rainforest is located, the Tsaratanana Massif, the central highlands characterized by deforested hills, the west coast, and the southwest. Most of the population lives in areas along the eastern and western coasts and near the capital city of Antananarivo in the central highlands. About 20 percent of the population lives in urban areas.

2. **Madagascar remains on a robust growth trajectory, despite headwinds.** Following a prolonged period of political instability and economic stagnation, growth accelerated over the last five years to reach an estimated 5.1 percent in 2018, its fastest pace in over a decade. The return to constitutional order in 2014 was instrumental to this economic revival, as it contributed to restore investor confidence, re-open access to key export markets, reinstate flows of concessional financing, and encourage structural reforms. Growth continued apace in 2019, although moderating slightly to an estimated 4.7 percent, amid weakening external demand and a slow execution of public spending following the presidential and parliamentary elections. A post-election rebound in public and private investments is expected to result in growth averaging 5.4 percent in 2020-21. However, risks to the outlook have intensified and the potential for higher and more inclusive growth continues to be held back by inadequate infrastructures, low human capital, and weak governance.

3. **The recent growth trajectory, however, has not translated into significant poverty reduction.** Madagascar has one of the highest rates of extreme poverty in the world. Close to 80 percent of Madagascar's population lives in rural areas, and rural poverty rates are more than twice as high as urban poverty rates. About 16 million or 70 percent of the total population lives below the poverty line. Poverty is not only widespread, it also runs deep: the average Malagasy consumes 32 percent less than a person living directly at the national poverty line. The most recent poverty analyses² show that Madagascar made little progress in improving the welfare of the poor between 2001 and 2012. The incidence of extreme poverty is higher among female-headed households, which make up one-fifth of all households.

4. **Poor rural connectivity and adverse government policies have led to a decline in agricultural returns.³** The average time to reach food markets increased from almost two hours in 2005 to close to two and a half hours in 2010 for the poorest quintile and the average real price to transport goods (for example a 50 kg bag of rice) rose by 42 percent. Many agrobusinesses do not operate in rural areas because of poor transport infrastructure. Improving transport connectivity is key to opening up market opportunities and reducing poverty in rural areas. Government policies aimed at stabilizing rice prices in the face of sharply rising world prices depressed the domestic producer price disproportionately, intensifying rural poverty. While these measures kept the price of

¹ 2018 census.

² World Bank. 2016. "Recent Trends and Analytical Findings on the Causes of Madagascar's Persistent Poverty." It uses household survey data from ENSOMD 2012 and EPM 2001, 2005, and 2010. Also see: World Bank. 2014. "Face of Poverty in Madagascar: Poverty, Gender, and Inequality Assessment."

³ Country Partnership Framework (CPF) for the Republic of Madagascar, Report No. 114744-MG.

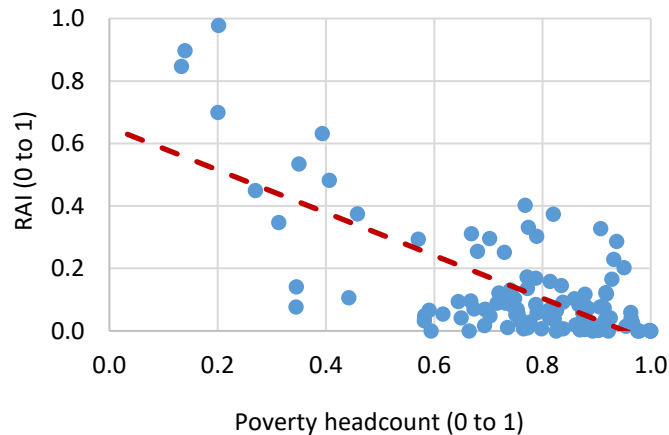


rice relatively stable for urban-based consumers, producers—who were also increasingly cut off from demand centers—were largely unable to benefit from rising world prices.

B. Sectoral and Institutional Context

5. **Although roads are the main mode of transport in Madagascar, road density is low. Nearly 17 million rural dwellers are disconnected from the network, leaving them isolated from markets and social services.** The official classified road network totals 31,640 km and 19 percent of it is paved. Road⁴ density is only 5.4 km per 100 km² of land, which compares unfavorably to some neighboring countries (for example, 6.9 km per 100 km² in Zambia, 10 km per 100 km² in Tanzania, and 28.4 km per 100 km² in Kenya). The current definition of the official road network is narrow as there are several unclassified roads, the extent of which is unknown, that provide last-mile connectivity to people, especially in rural areas. Rural Access Index (RAI), defined as the share of the rural population who live within 2 km of an all-season road, is estimated at 11.4 percent, among the lowest in the region.

Figure 1: RAI and Poverty Rates at District Level in Madagascar



Source: World Bank. 2018. *Madagascar Spatial Analysis of Transport Connectivity and Growth Potential*. Final report.

6. **The secondary road network—which is critical for linking primary trunk roads with rural roads—has long been neglected, resulting in low rural access.** While 70 percent of primary roads are in good condition, about two-thirds of secondary roads are estimated to be in poor condition.⁵ The non-primary network (that is, secondary roads, provincial roads [*routes provinciales* RPs], and communal roads [*routes communales* RCs]) is in very poor condition. Most non-primary roads need to be repaired and rehabilitated to bring them to maintainable standard.

7. **Poor rural connectivity is a contributing factor to low access to health care services in rural areas of Madagascar.** Basic health centers are poorly connected to villages where people live because of poor rural roads. About half of the *fokontany* (villages) are located more than 10 km away from basic health centers. In addition, a quarter of the country's 3,600 basic health centers are disconnected from the official or main road network, which

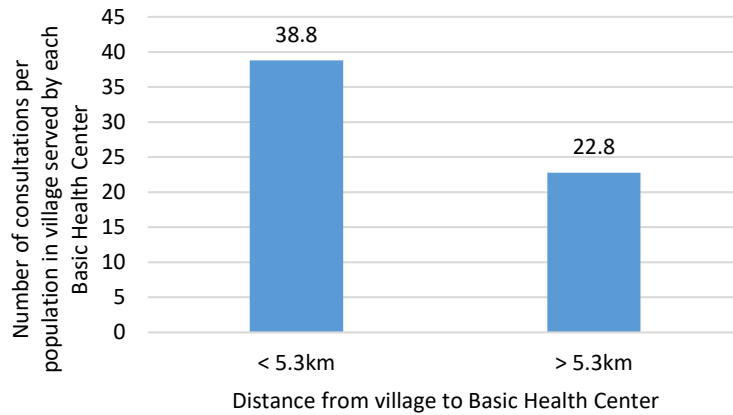
⁴ Primary roads connect regional capitals and Antananarivo. Secondary roads connect primary roads and important ports and economic poles. The tertiary roads of the classified network connect district centers and villages.

⁵ World Bank. 2015. Support to the National Transport Strategy (*Appui à la Stratégie Sectorielle des Transports*).



is critical to ensure the timely delivery of medical supplies. Currently, many primary health facilities experience a stock-out of medical supplies during the rainy season (October to April) when many roads are impassable.

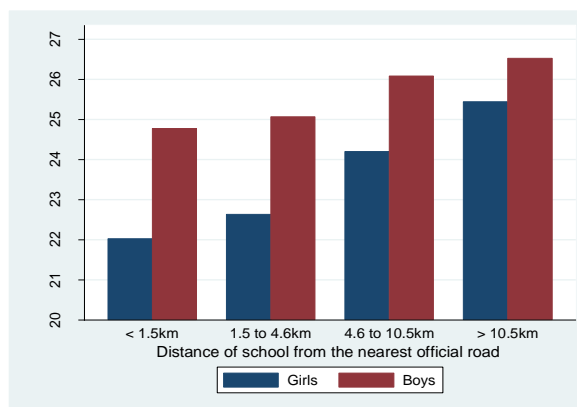
Figure 2: Number of Patients per 100 Persons in Villages Served by a Basic Health Center



Source: World Bank. 2018. *Madagascar Spatial Analysis of Transport Connectivity and Growth Potential*. Final report.

8. **Among other factors, the lack of road connectivity is a constraint to improved education outcomes.** The network of schools in Madagascar is quite extensive (more than 34,000 schools). However, more than half of them are completely disconnected from the road network. Further, repetition rates are very high with 20 percent of students repeating the same grade in primary schools. Recent data have shown that repetition rates significantly increase with distance to a well-functioning road (Figure 3). From a supply perspective, the Madagascar Spatial Analysis of Transport Connectivity and Growth Potential has shown that teacher recruitment and retention could be improved through better connectivity. This is corroborated by several case studies.⁶ For example, in India, improved rural connectivity significantly reduced teacher absences (teachers often lived outside the village and, without all-weather roads, were forced to be absent due to poor weather).

Figure 3: Repetition Rate and Distance from Road



Source: World Bank. 2018. *Madagascar Spatial Analysis of Transport Connectivity and Growth Potential*. Final report.

⁶ Asim et al. (2017); Bell and Van Dillen (2012); Starkey (2007); and Levy (2004).



9. **Rural livelihoods are severely constrained by the lack of affordable transport services linking populations to economic opportunities and human capital services.** In rural areas of Madagascar, the few existing transport services are provided by informal entrepreneurs using *taxi brousse* (buses and trucks). Operating costs of vehicles are very high due to the poor condition of the feeder road network and the low vehicle-operating speeds. This is severely impeding the development of rural transport services and thus adversely impacting access to markets and human capital services for the rural population.

10. **Madagascar faces significant risk due to an increasingly variable and changing climate.** Almost every year, the country suffers from extreme climate events such as cyclones and floods, causing significant economic losses. These events are becoming increasingly frequent and intense. Under-designed or under-maintained transport infrastructures are particularly vulnerable and easily washed away, causing reconstruction costs as well as disruption costs to the economy. In 2010, about 60 percent of extremely poor households suffered a catastrophic event or a combination of catastrophic events (for example, cyclones, floods, droughts, locust infestations, plant diseases) that adversely affected their economic well-being.

11. **Madagascar has among the highest road fatality rates in the world, ranking 152 out of 175 countries/regions.**⁷ There were 340 road fatalities in 2016, or 28.6 per 100,000 people, higher than the 26.8 average for all of Africa.⁸ As the economy picks up, car ownership is likely to increase rapidly. Without proper road safety measures, traffic fatalities would increase. The main risk factors for injuries include reckless driving, drunken driving, poor road surfaces, inadequate signage, lack of protection for pedestrians, poor speed regulation, inadequate traffic law enforcement, and weak governance. In theory, the Ministry of Transport, Tourism, and Meteorology (MTTM) has the responsibility for coordinating all relevant ministries such as the Ministries of Health and Education and the Land Transport Agency, but there is no capacity in practical terms. The Government recognizes that there is an urgent need to develop road safety policies, implementation mechanisms, and monitoring systems. But technical and financial support are still needed.

12. **Public expenditure on road rehabilitation and maintenance is extremely limited.** During the last decade (2005–2016), the Government spent only US\$19 million per year on road improvement, which is barely enough to improve 80 km of main roads or 0.3 percent of the total network per year. This is by no means enough to sustain the quality of the current road network. It is equally important to develop a proactive strategy and increase resilience of transport infrastructure in vulnerable areas, rather than spending significant resources on emergency works.

13. **Under the current decentralization framework, local authorities are responsible for the RP and RC networks.** However, they neither have the capacity nor the resources to manage them. There have been very few interventions on these networks due to the lack of financial resources in the Road Maintenance Fund (*Fonds d'Entretien Routier*, FER). As a result, these roads have deteriorated and require significant resources to bring them to maintainable standards. Furthermore, local authorities both at the provincial and communal levels lack the necessary structural, technical, and financial capacity to manage the networks.

14. **The fragmented institutional setup is the main challenge in implementing road programs.** Responsibility for the management of the national road (*route nationale* RN) network is currently split between the Ministry of Spatial Planning, Housing, and Public Works (*Ministère de l'Aménagement du Territoire, de l'Habitat et des Travaux*

⁷ World Health Organization (WHO). Global Status Report on Road Safety 2018. Geneva. WHO.

⁸ World Health Organization (WHO). Global Status Report on Road Safety 2018. Geneva. WHO.



Publics, MAHTP) and the Road Authority of Madagascar (*Autorité Routière de Madagascar*, ARM), despite existing laws entrusting the ARM with management responsibility over the entire RN network. Indeed, only 40 percent of RNs have been effectively transferred from the MAHTP to the ARM. The MAHTP's continuing involvement in network management creates confusion and makes it difficult to plan, monitor, and coordinate road sector investments and maintenance. Furthermore, it delays the materialization of the MAHTP's own internal reform to refocus its prerogatives on technical oversight and supervision as well as technical support to local authorities for the management of their road networks.

15. **A new institutional setup is in place since June 2019.** Two presidential ordinances were issued on June 18, 2019, to abrogate the ARM and the FER and replace them with the Road Agency (*Agence Routière de Madagascar*, RA) and the Road Fund (*Fonds Routier*, RF), respectively.

16. **The decree creating the RA also sets its organization, operation, and responsibilities.** The newly created RA is a public institution with an economic vocation and is responsible for: (a) carrying out management, investment, development, maintenance, and operation of road networks and related structures and equipment; (b) assisting in the programming of road projects including construction, rehabilitation, and periodic and routine maintenance, in accordance with the guidelines and strategic planning established by the Government; (c) promoting lower investment and maintenance costs for the RN network and improving service to users; and (d) ensuring better preservation and conservation of the RN asset.

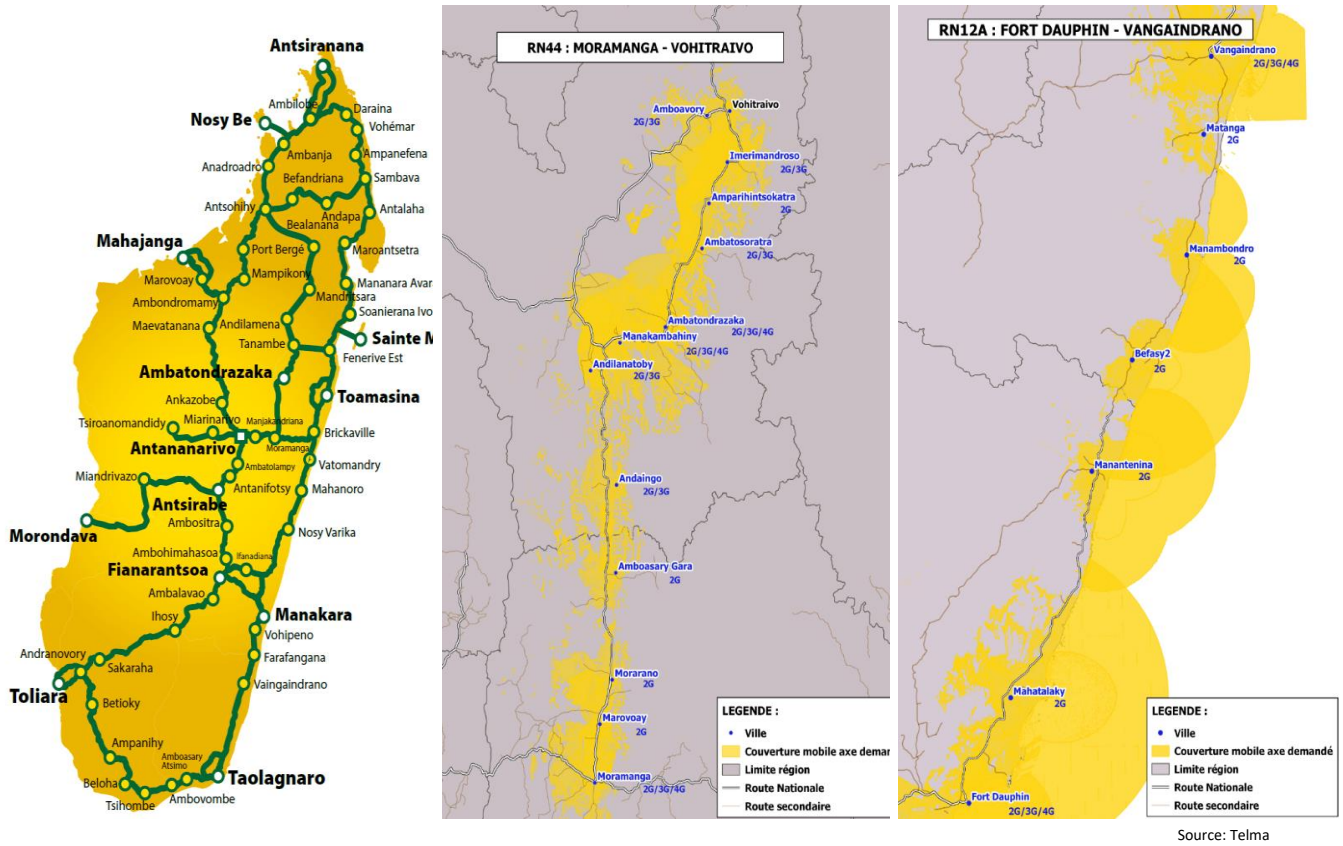
17. **The newly created RF is a public institution classified as a national fund and subject to the rules governing administrative public institutions.** Its main tasks are to: (a) contribute to the direction and implementation of the RN policy in both investment and maintenance and (b) ensure the collection and management of resources that can be allocated to the achievement of the objectives of policies and strategies for the development and safeguarding of the RN asset. Major innovations made by the decree include: (a) widening the field of activities of the RF to cover construction, rehabilitation, management, and operation of road networks, while previously the FER was limited to maintenance only and (b) changing the Road Maintenance Orientation Board (*Conseil d'Orientation de l'Entretien Routier*, COER) of the FER to the Board of Directors and Orientation (*Conseil d'Orientation et d'Administration*, COA) and increasing membership to 13 directors.

18. **With the recent increase in penetration of information and communication technology (ICT⁹) services, there is an opportunity to leverage low-cost digital solutions for connectivity and rural livelihood improvement.** With support from an International Development Association (IDA) credit, the Communications Infrastructure Project (CIP, P094103) was implemented between November 2007 and December 2015 in three main areas covering nine regions, mostly in rural areas and in locations that are difficult to access. Successful implementation of the project resulted in significant growth in the penetration of ICT services in certain regions. Internet service penetration improved from negligible at the time of project approval in 2007 to 13.4 percent at the end of the project in 2015, tripling the targeted goal. At the same time, the volume of international traffic reached 32 Gigabytes per second at the end of the project, exceeding the intended goal by almost 50 percent. This growth included remote populations in more than 660 rural communities, including in the project areas, who now have access to ICT. Furthermore, private telecommunications service providers have started to deploy cost-effective broadband connectivity solutions to schools in remote rural areas.

⁹ In Madagascar, ICT falls under the Ministry of Posts, Telecommunications, and Digital Development.



Figure 4: Fiber and Mobile Data coverage in project areas



C. Relevance to Higher Level Objectives

19. **Transport connectivity is a common challenge across key sectors in Madagascar.** Although the country possesses important infrastructure including roads, railways, and ports, their condition is generally poor due to past underinvestment and under-maintenance, increasing transport costs and thus hindering commercial transactions and private sector competitiveness, as well as making infrastructure more vulnerable to the impacts of natural disasters and climate change.

20. **The Madagascar Spatial Analysis of Transport Connectivity and Growth Potential¹⁰ (P163751) has shown a strong association between poverty rates, rural connectivity, crop/fishery production, and agribusiness development.** Rural farmers who are mostly poor¹¹ do not have good access to markets and other services, resulting in minimal productivity in the agriculture sector. Several agribusinesses are emerging in a few major

¹⁰ The World Bank in collaboration with the Government of Madagascar (GoM) conducted a Madagascar Spatial Analysis of Transport Connectivity and Growth Potential study that aims at providing necessary analytics and data to identify key connectivity constraints to poverty reduction as well as contributing to better knowledge of the country's priority investment needs for improved transport connectivity and sustained growth.

¹¹ A clear majority of rural households (89 percent) is highly dependent on subsistence farming, which is characterized by extremely low levels of productivity.



cities where access to market is good. Fishery landing sites especially in the southern and northern coastal areas are not well connected to local towns or major cities because of the poor condition of RCs.

21. **The proposed project will build on the recommendations from the recently concluded (June 2019) Madagascar Digital Economy Assessment Report by promoting digitally enabled platforms in the agricultural sector.** Madagascar has already made remarkable progress in terms of the digital economy. Thanks to an entrepreneurial private sector, investments in fiber optics have resulted in Madagascar becoming the country with the fastest broadband Internet in Africa and internationally ranking ahead of countries such as France, Canada, and the United Kingdom.¹² Because of increased mobile coverage (86 percent in 2018¹³) and reduced communication costs, Internet usage rapidly progressed, reaching 10 percent of the population in 2017, up from 0.65 percent a decade ago.¹⁴ Mobile phone usage tripled in the last decade,¹⁵ boosted in part by a youthful population, 41 percent of whom were aged 14 and below in 2017.¹⁶

22. **The project supports the World Bank Group twin goals of reducing extreme poverty and enhancing shared prosperity, as it will target areas of Madagascar where the poor are concentrated and where extreme poverty is pervasive.** It is in line with the World Bank's transport strategy which focuses on sustainability as part of a broader effort to eradicate poverty, raise shared prosperity, and enhance resilience of transport and communities to the impacts of natural disasters and climate change, namely the occurrence of extreme events like flooding and cyclones. The project is also fully aligned with the World Bank's CPF for FY17–21 which aims to build on the current relative political stability to help address structural fragilities that hamper sustainable human and economic development in Madagascar. The project supports the two focus areas of the CPF: (a) increase resilience and reduce fragility and (b) promote inclusive growth. The proposed project is also aligned with the GoM's 2015–2019 National Development Plan which promotes development through inclusive and sustainable growth while taking the spatial dimension into account.

23. **The proposed project will coordinate with and leverage investments being made by other projects in rural provinces of Madagascar, especially the Integrated Growth Poles and Corridor Project (IGPCP, P164536).** The IGPCP will implement diverse components with regard to stimulating enterprises and smallholder agriculture, marketing, and resource conservation, in addition to components for setting up market center facilities in selected regions of the south and the north of Madagascar.

¹² Madagascar was linked up to the East Africa Submarine Cable System (EASSy), a submarine fiber optic cable connecting Sudan to South Africa. At 24.9 megabits per second, Madagascar's broadband speed is now more than twice the global average (<https://www.cable.co.uk/broadband/speed/worldwide-speed-league/>).

¹³ This is according to the Regulation Authority of Communication Technology (*Autorité de Régulation des Technologies de Communication*, ARTEC).

¹⁴ World Bank data.

¹⁵ There were 34 mobile cellular subscriptions per 100 people in 2017, up from 11 in 2007 (World Bank data, <https://data.worldbank.org/indicator/IT.CEL.SETS.P2?locations=MG>).

¹⁶ World Bank (2019).



Table 1: Major Road Connectivity Investments Financed by Donors, 2013–2020

Projects	Geographical Focus	Type of Network	Value of Connectivity Improvements (US\$, millions)	Implementation Period
World Bank (IDA)				
Integrated Growth Poles and Corridors 2.2 (P164536)	North Southwest	Urban, Tertiary	20.0	2019–2023
Sustainable Landscape Management Project (P154698)	North	Tertiary	5.0	2017–2022
Agriculture Rural Growth and Land Management Project (P151469)	Northeast Center	Tertiary	12.46	2016–2022
Integrated Poles and Corridor Project 2 (P113971)	North Southwest	Urban, Tertiary	6.0	2015–2019
Emergency Infrastructure Preservation and Vulnerability Reduction Project (P132101)	North Northwest	Primary	58.0	2016–2019 (closed)
AfDB				
Road Infrastructure Improvement Project	Southwest	Primary	85.0	2013–2019
Indian Ocean Project to Develop Corridors and Facilitate Trade	Southwest Southeast	Primary Secondary	200.0	2019–2024
EU/EIB				
Modernization of the Road Network of Madagascar	South	Primary	260.0	2019–2024

Note: AfDB = African Development Bank; EU = European Union; EIB = European Investment Bank.

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

24. **The Project Development Objective (PDO) is to enhance transport connectivity in selected rural areas to improve access to social and economic opportunities of communities.**

PDO Level Indicators

25. The PDO-level indicators of the project include:

- (a) Rural population with access to an all-season road (number);
- (b) Travel time from Marovoay to Vohidiala and Fort-Dauphin to Vangaindrano (hours);
- (c) Number of schools in the project areas with improved road access (number);



- (d) Number of health centers in the project areas with improved road access (number); and
- (e) Quantity of litchi from the project areas (South-East) transported to markets (metric ton);
- (f) Number of health centers in the project areas with improved road access (number).

B. Project Components

26. **The proposed project will enhance road connectivity in the priority regions of Alaotra Mangoro, Anosy, and Atsimo-Atsinanana through climate-resilient interventions on secondary, provincial, and communal road networks and promote the use of ICT for rural development and transport services.** The project components are detailed in the following paragraphs and Annex 1.

Component 1: Rehabilitation of Secondary Roads in Priority Regions (estimated cost US\$108.0 million equivalent financed by IDA)

27. **Component 1 primarily focuses on the climate-resilient rehabilitation of the secondary road network in priority regions, the ‘missing middle’ which is critical for continuity and connecting rural roads with the main network, thus connecting rural areas to secondary cities.** It supports rehabilitation of 148 km of secondary roads selected using the prioritization method described in Section IV. It covers: (a) the rehabilitation of a 113 km¹⁷ section of RNS44 which is the only connection between the rice basin of Ambatondrazaka and the main trunk network in the Alaotra Mangoro region; (b) the rehabilitation of a section of about 35 km of RNS12A which is the only road that provides access to the poorest districts in the country located in the regions of Anosy and Atsimo-Atsinanana; and (c) construction of the Manambondro bridge on RNS12A to replace the existing ferry crossing.

28. The works interventions will include, among other things, construction of bridges, rehabilitation or reconstruction of hydraulic structures, rehabilitation of roads and their pavements, and improvement of related road safety facilities¹⁸. These works will be informed with consideration of risks of natural disasters and climate change impacts.

Component 2: Improvement of Provincial, Communal, and Unclassified Roads in Priority Regions (estimated cost US\$20.0 million equivalent financed by IDA)

29. **This component will finance improvement works on sections of RPs, RCs, and unclassified roads totaling 500 km to enhance road accessibility and climate resilience in selected communes of the targeted regions, including design studies and supervision of works.** These roads will improve access to markets and human capital services, including schools and health centers, and agriculture production areas. The types of interventions include, among others, reconstruction or rehabilitation of hydraulic structures, graveling, and surface treatment.

¹⁷ Out of the 113 km, a first stretch of 40 km, from Marovoay to Amboasary, is being constructed by GoM using IDA retroactive financing mechanism (see Annex 1).

¹⁸ Horizontal and vertical signage, traffic calming measures, guardrails, etc.



Component 3: Promotion of Digital Solutions in Targeted Rural Communities (estimated cost US\$4.0 million equivalent financed by IDA)

30. The project provides a strong opportunity to support the development of Digital Solutions, capitalizing on the high-capacity fiber optic cables already lined up along the secondary roads (RNS44 and RNS12A) to be rehabilitated under Component 1. The project will leverage existing digital connectivity solutions to deliver digitally enabled transport and agricultural services to the rural communities that are the beneficiaries under Components 1 and 2. The digital kiosks manned by trained community members will complement users of smartphones and feature phones on 2G+ networks in farmer groups or cooperatives to provide a suite of applications and services that will enhance climate resilience and help reduce information asymmetry between farmers and the markets. Using the Community Information Kiosks as digital aggregation points, the project will extend the digital services to those who do not own a mobile phone or have access to mobile data service. **This component will not invest in the expansion of broadband connectivity but rather focus opportunistically on the development of digital services targeted to the local communities. Specifically, this component will support the emergence of a digital innovation ecosystem aimed at providing local content, applications, and services for rural development in the areas targeted by the project.** It will include, among others, the following activities: (a) provision of relevant close-to-real-time agroclimatic data and forecasts via mobile phones and smartphones, access-to-market pricing and commodity futures trading information via mobile phones and smartphones through cloud-based dissemination platforms to small-scale farmers for increased productivity, and climate data and local and regional market information through the deployment of Community Information Kiosks; (b) promotion of rural transport services through the use of ICT-based solutions to connect key services, the marketplace, and end users in a reliable and cost-effective manner; and (c) financing of necessary equipment and materials for the digital platform and services, including smartphones, GPS equipment, solar panels, computers, software, and so on.

31. The project will ensure that interventions under this component are benefiting from lessons learned from and are implemented in alignment and coordination with relevant ongoing and planned activities in the Agriculture, Finance, Competitiveness and Innovation, and Digital Governance sectors. Specifically, while the deployment of warehouses to be co-located with the Community Information Kiosks will be coordinated with Integrated Growth Poles of Agroindustry Project in the South of Madagascar funded by AfDB, the introduction of digital payments for Transport and Agricultural services in the target areas will be informed by the scope of Integrated Growth Poles and Corridors 2.2 (P164536) and MG-Digital Governance and Identification Management System Project- PRODIGY (P169413) projects.

Component 4: Capacity Building and Project Management (estimated cost US\$8.0 million equivalent financed by IDA)

32. This component will finance capacity building and institutional-strengthening activities of the transport sector, among other things, in the following areas: (a) strengthening the institutional capacity of the MAHTP and the newly created RA and RF, including, among others, improving road asset management at the national and subnational levels; (b) building capacity for ensuring road safety; (c) building capacity for the inclusion of climate resilience in the planning and management of road infrastructure; (d) supporting MAHTP for building skills in geo-spatial planning and analysis in Madagascar; and (e) supporting the main public engineering university on civil engineering and digital technology. This component will also provide support and build capacity for the project management, implementation, supervision, including audit of the project and social and environmental



safeguards; identification and mitigation of gender disparities¹⁹; and mainstreaming of citizen engagement in the road sector.

33. This component will also finance activities designed to prevent and mitigate Gender-based Violence (GBV) including Sexual Exploitation and Abuse (SEA) risks linked to project civil works sites, as well as their monitoring. These activities will be implemented together with a specialized nongovernmental organization (NGO) with extensive experience in working on GBV matters in Madagascar. Recognizing that there is a significant risk of GBV in the project areas, the project has developed an approach based on the World Bank's 'Good Practice Note (GPN) for Addressing Gender Based Violence in Investment Project Financing (IPF) involving Major Civil Works'. Annex 3 provides details of the GBV Prevention and Service Provision Action Plan. **The budget of safeguard monitoring activities is included under Component 4 and estimated at US\$1,000,000 (see Annex 1, Table 1.1).**

Component 5: Contingency Emergency Response Component

34. This component will facilitate access to rapid financing by allowing reallocation of uncommitted project funds in the event of a natural disaster, either by a formal declaration of a national emergency or upon a formal request from the GoM. Component 5 will use IDA Immediate Response Mechanism.

C. Project Beneficiaries

35. **The direct development impact of the project will be improved road conditions, reduced travel costs, increased accessibility, and more reliable road infrastructure.** These benefits will result from project investments in road infrastructure emphasizing, in particular, climate change resilience. These impacts will translate into the growth of the regional economy and will promote development of local agricultural production and related industries, which will in turn contribute to improved household welfare, resilience, and ultimately alleviating poverty. In addition, the technical assistance activities of the project will improve the implementation capacities of public agencies, which will indirectly contribute to the sustainability and resilience of road infrastructure.

36. **The primary beneficiaries of Components 1, 2, and 3 are the inhabitants of the three targeted regions of Alaotra Mangoro, Anosy, and Atsimo-Atsinanana.** The rural population of the targeted regions is around 2.7 million people, about 2 million of whom are considered extremely poor, vulnerable to climate impacts and will benefit from improved road access to markets and basic social services. The beneficiaries of these components will also include students and teachers who will gain improved physical access to 139 schools, as well as rural people accessing 50 health centers²⁰.

37. **The proposed project will indirectly benefit the urban population near the project areas.** This population, estimated at 382,000, will benefit from increased and cheaper locally produced agricultural products available for consumption.

¹⁹ Currently, there is no diagnostic that analyzes gender disparities in the road sector in Madagascar.

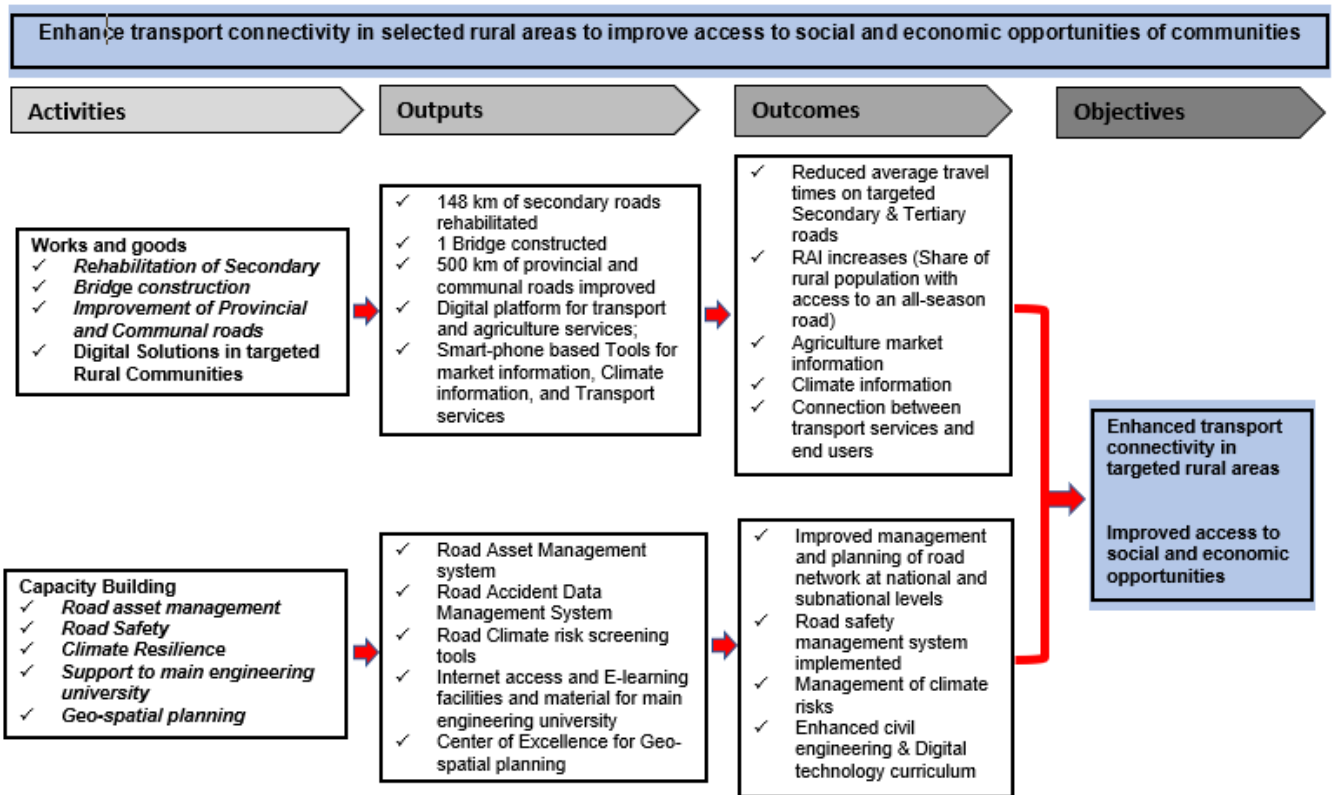
²⁰ The schools and health centers in the project area have been geo-referenced in the district and commune level spatial analysis (see Section IV and Figure 9).



D. Results Chain

38. The key underlying assumptions of the project’s theory of change (Figure 4) are that the combined effect of: (a) improved physical condition of the road network in the project area; (b) availability of basic agricultural market information; and (c) connection between transport services and end users through a digital platform will translate into increased use of the road network by rural households and small businesses. This means that rural communities will have improved access to economic opportunities and key human capital services.

Figure 5: Project Theory of Change



E. Rationale for World Bank Involvement and Role of Partners

39. The World Bank helped define a spatial prioritization framework that is expected to influence the decision-making process of future transport sector investments by the GoM and donors. The Madagascar Spatial Analysis of Transport Connectivity and Growth Potential conducted in 2018 has contributed to an improved knowledge of Madagascar’s priority transport infrastructure investment needs that are required to unlock untapped economic potential in key sectors such as agriculture, fishery, and tourism.

40. The proposed project will reinforce the positive outcomes of World Bank-financed budget support operations. The First Inclusive and Resilience Development Policy Operation (DPO-1, P162279) successfully supported enhancements in the FER transparency and allocation of scarce resources. A decree was adopted by the Council of Ministers in 2017 to ensure: (a) annual publication of a detailed budget with forecasted resources



retransferred into the FER and use of retained earnings and planned expenditures for the following year; (b) annual publication of executed expenditures for the previous year and explanations of any deviations; and (c) publication of prioritization guidelines, including the distribution of expenditures across regions. Further, the decree specified the annual fraction of the FER allocated to maintenance of RC networks at 10 percent. In June 2019, a decree replaced the FER with the RF which covers not only the maintenance of the overall road network, but also includes new investments in rehabilitation, construction, and operations. The proposed project will strengthen the capacity of central and local authorities for the implementation of their road maintenance programs.

41. **The traffic volumes on the targeted secondary and tertiary networks are low and will not allow cost recovery.** Public sector financing is therefore appropriate.

42. **The proposed project will maximize synergies with other development partners (geographically, in scope, and type of support) to ensure convergence for maximum consistency and impacts.** The proposed project will leverage investments by other development partners, including the EU and AfDB, in the targeted regions. Key relevant interventions include EU funding for the rehabilitation of National Road 13 (RN13) in the south and rehabilitation and spot improvement of sections of RNS12A along the eastern coast of Madagascar as well as AfDB funding for rehabilitation of sections of RNS12A.

43. **The proposed project supports the objectives of the Digital Economy Moonshot for Africa (DE4A), a regional flagship program that will support the African Union initiative for Digital Transformation.** The activities planned under Component 3 (refer to Annex 1) will contribute to the achievement of the Digital Platform and Digital Literacy pillars of the DE4A in Madagascar.

F. Lessons Learned and Reflected in the Project Design

44. **The project draws lessons from rural road programs implemented in Africa in recent years.** More specifically, it embraces the following lessons from the Rural Road Investment Efficiency Report:²¹

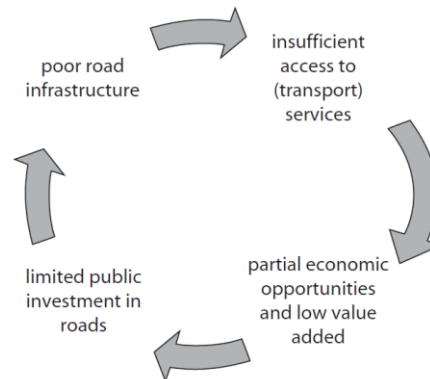
- (a) **Road investment strategies should be revised in many countries using new tools, such as spatial economics and satellite imaging, to increase the efficiency of such investments.** Project design is informed by the recently completed Madagascar Spatial Analysis of Transport Connectivity and Growth Potential. The use of spatial economics is an attempt to increase the efficiency of investments in the road sector in Madagascar.
- (b) **Focus should be more on the missing middle and better coordinate interventions. The secondary road network has long been forgotten and is vital to linking main (trunk) roads with rural roads.** The secondary road network, which links secondary cities, should be in good condition (paved or unpaved) to enable truck fleet efficiency and competition. Donor coordination is critical and can ensure, for example, that rehabilitation of rural roads is focused on the ones that are connected to passable secondary roads.

²¹ World Bank. 2017. *Rural Road Investment Efficiency: Lessons from Burkina Faso, Cameroon, and Uganda*. Report No. 53646.



- (c) **Transport services have long been neglected.** To take advantage of transport infrastructure and, thus, escape from poverty, affordable means and services of transport are required.²² In addition to road rehabilitation, the proposed project will support the establishment of a Digital Platform for Transport and Agricultural Services in targeted rural areas (refer to Annex 1).

Figure 6: The Transport Trap in Rural Areas



Source: World Bank. 2017. *Rural Road Investment Efficiency: Lessons from Burkina Faso, Cameroon, and Uganda*.

45. **The project also draws lessons from digital rural pilots and initiatives implemented in Africa. Several pilots and other projects funded by the World Bank, have been launched with limited impact and very low viability.** This is due to several factors: (a) there is often lack of ownership with off-the-shelf solutions pushed to the users or replicated from other countries or context; (b) the pilot provides the technical solutions for free or without any cost-recovery plan and the users are not ready to pay after the pilot is over; and (c) technology adoption and digital literacy have been an obstacle to scale-up, so the pilots rarely reached a critical mass of users ensuring the financial viability of the service. Component 3 of the proposed project will address the three issues in parallel by providing customized training to the users, building the viability of the service in the initial design, and ensuring ownership by involving the end user in the design of the service.

46. **The project is aligned with the Human Capital Project.** The project design recognized the link between transport and human capital and access to schools and health centers was an integral part of the prioritization process that led to the identification of investments financed by the project. Further, the project is aligned with the proposed Investing in Human Capital DPO²³ (P168697) which objective is to support the GoM's investment in human capital, through improving the human resources in health and education, the availability and execution of financial resources in the social sectors, and the legal protections for women and children.

47. **For improved road safety outcomes, it is primordial to adopt an institutional strategy that is results-focused. The project will support the action plan of the results-focused road safety strategy under preparation.** A country's results focus can be seen in its 'ambition' to improve road safety, identified through its targets, goals, and objectives. In the absence of a clear focus on results, all the supporting activities and programs can lack cohesion and direction and the efficiency and effectiveness of the plan can be compromised. Institutional responsibilities and accountabilities for road safety become a key requirement, particularly in a shift to the 'safe

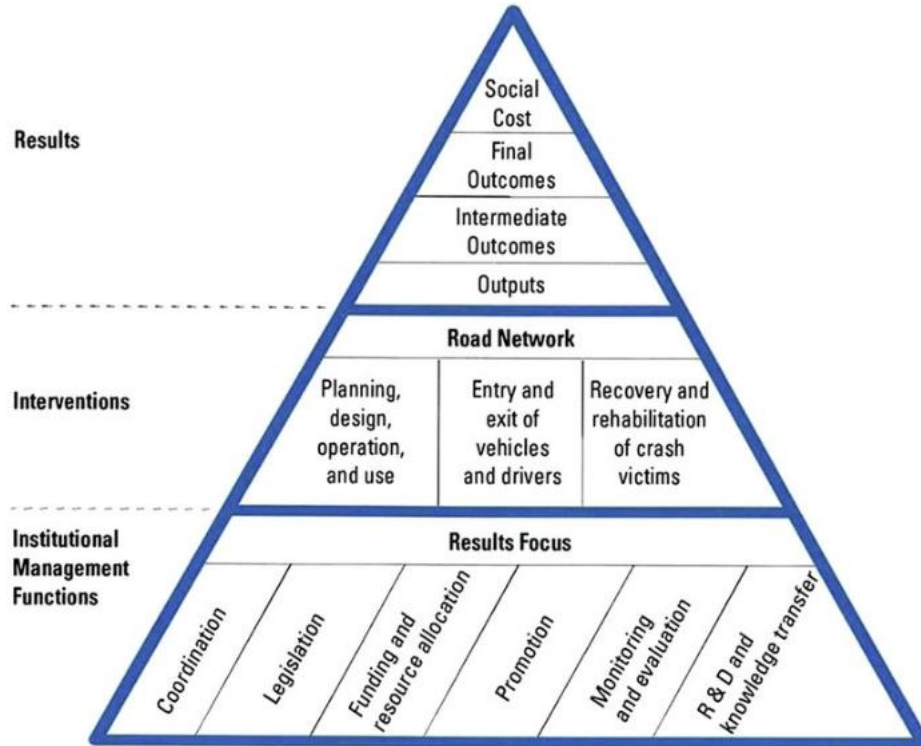
²² Gannon and Liu 1997; Njenga and Davis 2003; Sieber 1999.

²³ Planned delivery date of December 2019.



system approach’ which requires higher levels of road network operator accountability for safe performance. This in turn sharpens the focus on the safety performance of the vehicles and people who access the network. Hence, the establishment and meeting of road safety targets require a clear understanding of all elements of the road safety management system and the linkages between them, which are identified in Figure 7 below.

Figure 7: The Road Safety Management System



Source: World Bank. 2000. Building on the frameworks of Land Transport Safety Authority.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

48. **The project will be housed within the MAHTP.** The institutional arrangements for project preparation and implementation of its activities are described below.

49. **Project Steering Committee.** A steering committee (SC) will be chaired by a representative of the MAHTP and will include, among others, representatives of the following ministries: Transport and Meteorology, Interior and Decentralization, Economy and Finance, Agriculture, Health, Education, ICT, and the Minister of Population, Social Protection and Gender. The SC will ensure that throughout the life of the proposed project, there is adequate strategic direction, overall oversight, and coordination with other line ministries. The SC will meet at least once a year and as may be needed.

50. **Project Technical Committee.** A technical committee (TC) will be chaired by the Project Coordinator (PC) and will include designated technical experts from the MAHTP; the RA; the RF; the Directorate of Land Transport



of the MTTM; the Ministry of Agriculture; the General Directorate of Public Debt of Ministry of Economy and Finance (*Ministère de l'Économie et des Finances*, MEF); the regions of Alaotra Mangoro, Anosy, and Atsimo-Atsinanana; and the Integrated Growth Pole Program and other designated technical representatives, as detailed in the project implementation manual (PIM). The TC will convene as needed and ensure technical oversight, review annual work plans and budget (AWPs&B), and ensure that the proposed project meets its overall objectives.

51. **Project Coordinating and Implementation Unit.** The Project Coordinating and Implementation Unit (PCU), which will be strengthened for project management, technical, and fiduciary aspects, will be housed in the MAHTP under the Director General of Public Works (*Direction Générale des Travaux Publics*, DGTP) of the ministry and will be responsible for: (a) preparation and consolidation of AWPs&B; (b) implementation, contract management, coordination, and monitoring of all project-related activities; (c) production of periodic implementation reports; (d) maintenance of records and accounts for all transactions related to the PCU and the project; (e) execution of the annual audit of the entire project and preparation of consolidated annual financial statements and Implementation Financial Reports (IFRs); (f) monitoring of the various activities supported under the project, including management of the environmental and social safeguards aspects and preparation of quarterly Activity Progress Reports; (g) monitoring and consolidation of the monitoring and evaluation (M&E) criteria as agreed with the Borrower; (h) procurement and financial management (FM); and (i) preparation and organization of the SC and TC meetings and the required documentation for the meetings.

52. **Implementing Agency (IA).** The implementing entity for the project is the PCU, on behalf of the MAHTP. The implementation capacity of the PCU will be strengthened through hiring of a qualified PC, social safeguard specialist, environmental specialist, GBV specialist, FM officer, internal auditor, accountant, procurement officer and procurement assistant, and other relevant technical specialists as detailed in the PIM. All contracts for PCU staffing and project implementation (works contractors, goods suppliers, consultants, and consulting firms) will be signed by the DGTP of the MAHTP. Relevant national technical entities, through their active involvement, will support the PCU in the implementation of the project through arrangements with the PCU as indicated below.

53. **The RA (formerly ARM) will be technically involved in Component 1.** RNS44 and RNS12A are secondary roads falling under the RA's responsibility. The RA will provide technical input in procurement of contractors for works and consultants for supervision of works (contractors and consultants are recruited by the PCU). The RA will also actively take part in the commissioning of works as it will take over the secondary roads once rehabilitated under the project.

54. **Local authorities (districts and communes) in Alaotra Mangoro, Anosy, and Atsimo-Atsinanana will be technically involved in Component 2.** With the support of the regional directorates of the MAHTP, local governments will be actively involved in planning the interventions on the RP and RC networks under Component 2. This arrangement will promote decentralization and build capacity in local government entities.

B. Results Monitoring and Evaluation Arrangements

55. **Framework for monitoring outcomes and results.** The monitoring of outcomes and results will be based on the agreed results framework and monitoring arrangements that are described in detail in Section VII.



56. **Responsibility for monitoring activities.** The PCU will be responsible for regular monitoring of the project. It will produce semiannual and annual progress reports. These reports will assess progress based on the indicators of the results framework. A consultant will be hired to assist the PCU in M&E.

C. Sustainability

57. **Sustainability of project outcomes will depend on stronger road sector institutions and increased financial resources for road maintenance.** Through technical assistance activities (Component 4), the project will support capacity building of road sector institutions through, among others: (a) the improvement of the existing road asset management system; (b) the inclusion of climate risk in the planning and design of road infrastructure, including the roads to be rehabilitated by the project; and (c) support to the newly created RA as an autonomous road entity entrusted with full management responsibility of the entire classified road network. The project will equally support the newly created RF and the implementation of the RF's action plan²⁴ for increasing its financial resources.

58. **Sustainability of feeder road investments (Component 2) will not be ensured if a clear institutional and financing arrangement for the management and maintenance of these networks is not effective.** The First Inclusive and Resilience DPO has supported the allocation of FER resources to local communes. The proposed project will follow up with capacity building (Component 4 (a)) to ensure that local authorities have the basic capacity required to plan and implement interventions on their road network.

59. **The development of digital platforms and services will be based on their long-term viability.** The proposed Digital Transport and Agriculture platform and associated services will be designed, developed, operated, and maintained for an extended period (typically five to seven years) by a Solutions Developer (or a vendor). In addition to the digital literacy programs to be implemented by the project, the Solutions Developer will build the capacity of relevant stakeholders to help maintain the digital solutions.

60. **The project will support development of capacity for geo-spatial planning and analysis in Madagascar.** The capacity that will be developed within the MAHTP will ensure proper targeting and planning of future interventions in the transport sector using a spatial lens and considering all productive sectors of the economy, regional growth potential, and accessibility of human capital services.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, and Economic Analysis

(i) Technical

61. **The project adopts a holistic network-based approach and targets the poorest districts of Madagascar.** The project's focus will be on improving the efficiency of movement of people and goods along targeted road networks, in support of agricultural growth and poverty reduction, through supporting both physical transport infrastructure improvement and institutional strengthening in the road sector, safety, resilience, and digital connectivity.

²⁴ As defined by the AfDB-financed technical assistance study to increase the financial resources of the FER (2017).

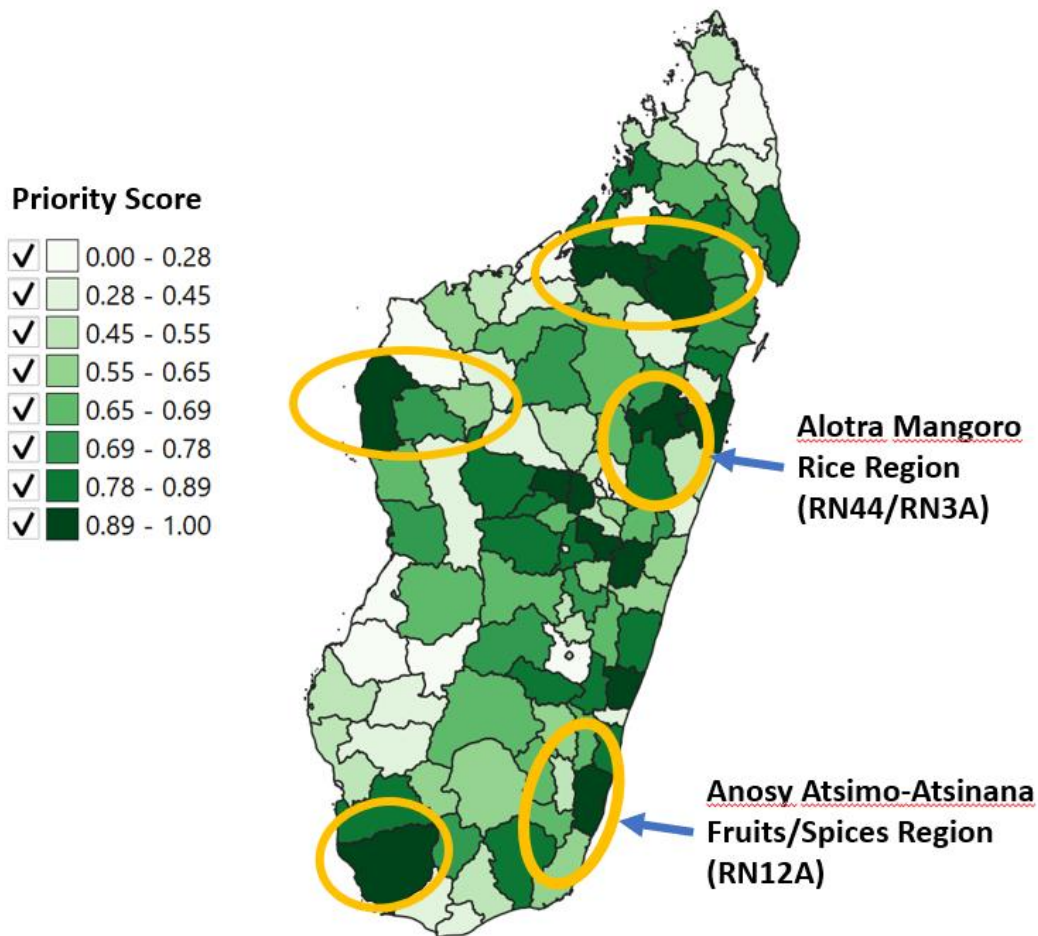


62. The targeted project areas for secondary road rehabilitation (Component 1) were selected through a prioritization process using the spatial economics framework provided by the Madagascar Spatial Analysis of Transport Connectivity and Growth Potential study. The GoM utilized the spatial model to prioritize key geographical clusters or regions where improvements in road connectivity could lead to significant positive social and economic outcomes and poverty reduction. These clusters were prioritized using the following criteria:

- (a) Incidence of poverty;
- (b) RAI;
- (c) Agricultural potential;
- (d) Agribusinesses (per 1,000 farmers); and
- (e) Weighted average distance to human capital services (health centers and schools).

63. In addition to the above criteria, the final selection of project regions (the three regions) was made with the objective of coordinating with ongoing and planned development projects in the country to maximize synergy across sectors.

Figure 8: Priority Regions for Secondary Road Rehabilitation

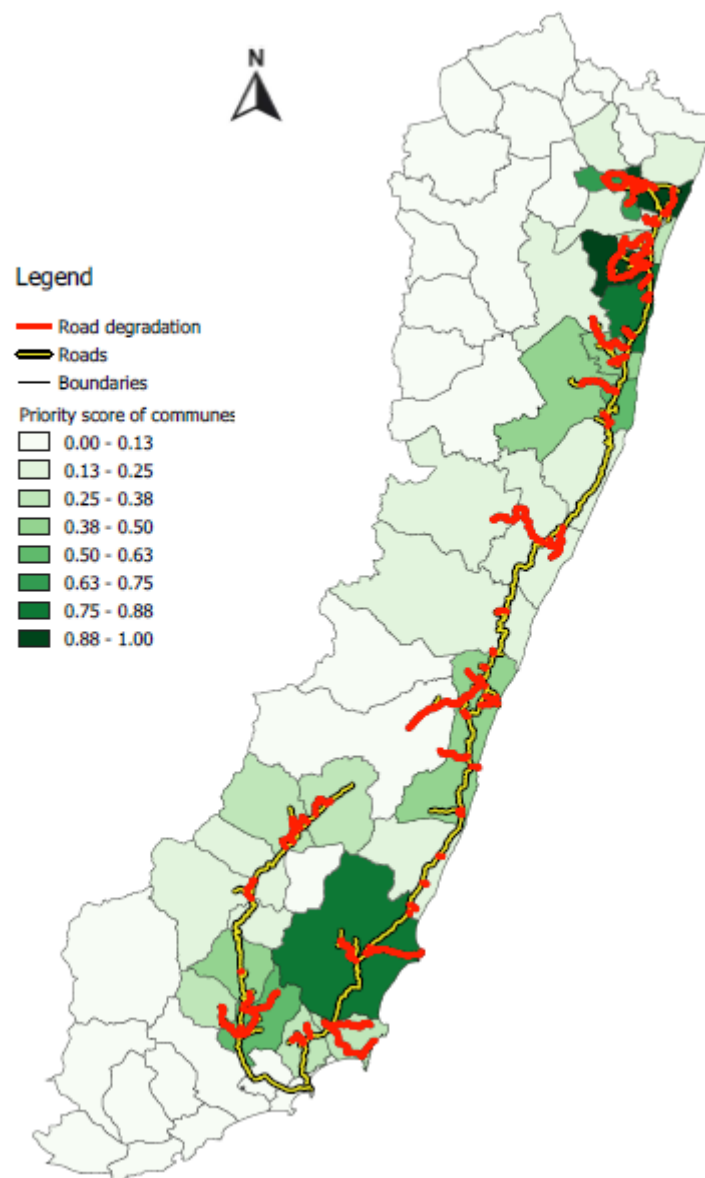




64. The targeted rural communes for provincial and communal networks improvement (Component 2) were prioritized further using a spatial analysis of district- and commune-level data in the same regions targeted by Component 1, based on:

- (a) RAI (25 percent weightage);
- (b) connectivity to schools (25 percent weightage);
- (c) connectivity to health centers (25 percent weightage); and
- (d) connectivity between production areas and local markets and urban centers (25 percent weightage).

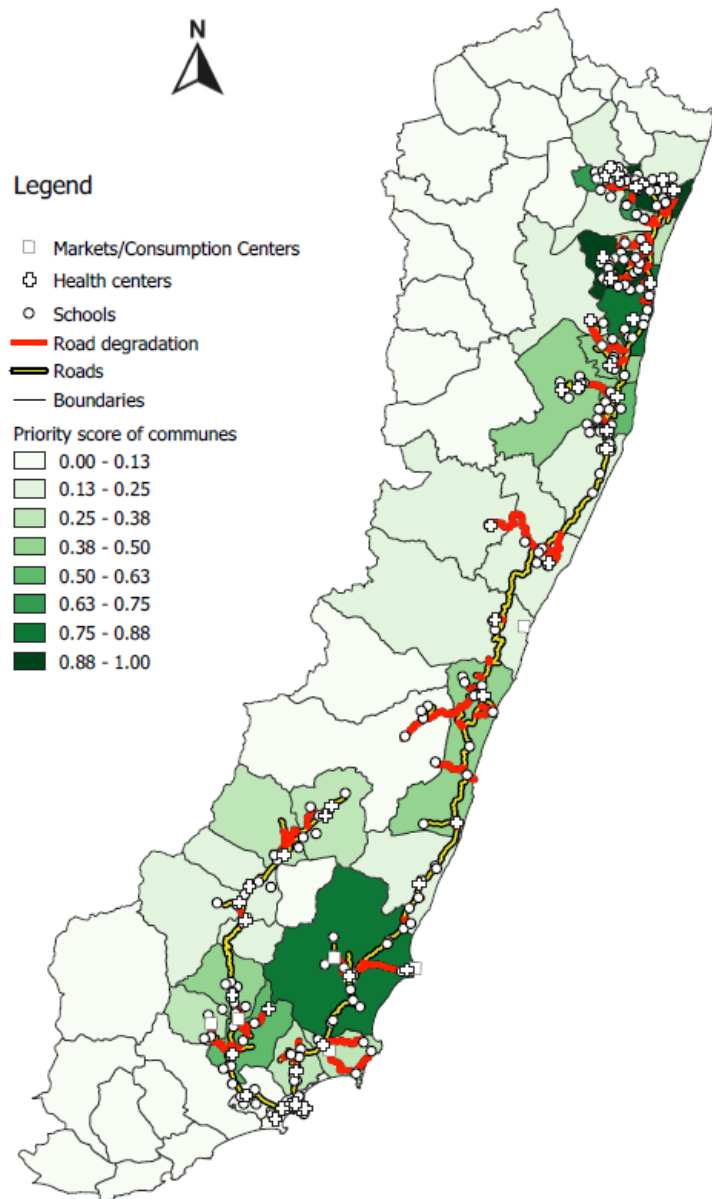
Figure 9: Rural Roads Degradation in Prioritized Communes





65. A long list of 1,930 km of RPs and RCs in the two project areas was identified and georeferenced: (a) about 980 km in Anosy and Atsimo-Atsinanana and (b) about 950 km in Alaotra Mangoro region. A participative planning process will be conducted during project implementation to come up with a short list of rural roads (RPs and RCs) that will be improved by the project under budget constraints, taking into account: climate vulnerability and redundancy of network and population served per unit of cost (cost effectiveness indicator). Additional criteria will include the standards to which roads will be improved, the method of implementation, as well as the number of participating districts and communes that have enough capacity for implementing projects.

Figure 10: Prioritization of Communes for Tertiary, Provincial, and Communal Networks Improvement in nosy and Atsimo-Atsinanana





(ii) Economic Analysis

66. **The Highway Development and Management-4 (HDM-4) Version 2 was used to analyze the economic impacts of secondary road rehabilitation (Component 1).** The HDM-4 analytical framework is based on the concept of pavement life cycle analysis, which is typically 20 years. This is applied to predict road deterioration, road works effects, road user effects, and socioeconomic and environmental effects. Economic benefits were calculated as the difference between the 'without investment' option and the different investment options. The HDM-4 model was used to simulate future changes to the study sections from current conditions. Estimates of benefits included impacts during the construction period and the direct impact on all users of the proposed facility.

67. The rehabilitation of RNS44 and RNS12A will have the following quantifiable economic impacts: (a) reduction in travel time for passengers and freight, reflecting the improved road condition; (b) reduction in vehicle operating costs; and (c) savings in greenhouse gas (GHG) emissions. Over the medium term, the impacts should contribute to a reduction in the cost of transportation and hence prices for goods. The result of the economic analysis is as follows:

(a) **RNS44.** Two technical options were evaluated: a double bituminous surface treatment (DBST) and a 40 mm asphalt concrete (AC) surface. **Based on current and projected traffic volumes, the AC surface is the recommended solution with a net present value (NPV) of US\$24.9 million at a 12 percent discount rate over an appraisal period of 20 years. The corresponding internal rate of return (IRR) is 16.4 percent.** Sensitivity analysis shows that the AC surface remains viable with a 20 percent reduction in traffic volume, reducing the IRR to 12.9 percent.

(b) **RNS12A.** Based on projected traffic, the recommended solution for the 35 km section of RNS12A consists of a DBST. **The NPV is US\$0.45 million at a 12 percent discount rate over 20 years. The IRR is 14.7 percent.** Sensitivity analysis shows that, with a reduction of 10 percent in traffic volume, the IRR will drop to 13 percent.

(c) **GHG accounting.** The gross estimate of GHG emission for the whole project over a 20-year period is 478,000 tons under the without-project scenario. It will drop to 379,500 tons under the with-project scenario, resulting in a net decrease of about 98,500 tons, or 4,925 tons per year. The reduction in GHG emissions can be attributed to the reduction in fuel consumption due to the increase in average vehicle speeds from about 25 km to 60 km per hour.

68. **The tertiary roads, RCs, and RPs to be improved by the project (Component 2) carry little traffic.** The prioritization methodology described above focuses on providing connectivity to human capital services (health and education), agricultural production areas, and markets. For these networks, the objective is to assure year-round access through spot improvements and rehabilitation or construction of drainage structures. The design of works will be geared toward finding the least-cost solution to arrive at a minimum level of service.



B. Fiduciary

(i) Financial Management

69. **Assessment.** An FM Assessment of the proposed PCU under the MAHTP was carried out in April 2019. The objective of the assessment was to determine whether the MAHTP has acceptable FM arrangements in place to ensure that project funds will only be used for intended purposes, with due attention to considerations of economy and efficiency. The FM Assessment was carried out in accordance with the World Bank Policy and Directive for Investment Project Financing.

70. **The conclusion of the assessment is that the PCU's FM arrangements will meet the World Bank's minimum requirements as per World Bank Policy and Directive once mitigation measures are implemented.** Mitigation measures include: (a) preparation of a PIM (including FM procedures); (b) recruitment of a qualified FM officer, an accountant, and an internal auditor; and (c) setting up of a computerized accounting system.

71. **Arrangements.** Arrangements are acceptable if they can accurately record all transactions supporting the preparation of reliable financial statements, can safeguard the project's assets, and are subject to auditing arrangements acceptable to the World Bank. In the past, the MAHTP outsourced the fiduciary functions to national specialized agencies such as the FER²⁵ and ARM.²⁶ Given the limited experience with IDA FM procedures, it was agreed that a dedicated PCU will be set up to implement the project. Provisions have been made in the project preparation advance to implement the key mitigation measures.

72. **The overall FM risk rating is assessed as Substantial and is expected to be Moderate once the mitigation measures are implemented.**

(ii) Procurement

73. A National Procurement Code was enacted in January 2017 and included simplification of procedures and compliance with international standards. The Procurement Code has also been supplemented by regulations, manuals of procedures, and standard bidding and other procurement documents.

74. **Procurement procedures.** Procurement for the proposed operation will be carried out in accordance with the World Bank Procurement Regulations for IPF Borrowers—Procurement in IPF: Goods, Works, Non-Consulting and Consulting Services, of July 1, 2016, revised November 2017 and August 2018 and the provisions stipulated in the Financing Agreement. Further, the Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, of October 15, 2006, and revised in January 2011, and as of July 1, 2016 will apply.

75. **The Borrower has prepared the Project Procurement Strategy for Development (PPSD) and the Procurement Plan to identify the optimum procurement strategy for meeting the project's development objectives.** The Procurement Plan includes selection methods. A summary of the PPSD is included in Annex 2.

²⁵ The FER is currently managing the PPA of this proposed project.

²⁶ The ARM implemented the Emergency Infrastructure Preservation and Vulnerability Reduction Project (P132101) at a cost of US\$102 million. The project ended in June 2018.



76. An initial 18-month Procurement Plan covering expected procurement activities under the project components was prepared before appraisal. After the project is approved by the Board, the Procurement Plan will be published on the MEF's website and the World Bank's external website. The Procurement Plan will be updated in agreement with the World Bank at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. The prior review thresholds governing the Procurement Plan are those included in the guidance note for prior reviews and issued by the World Bank.

77. **Procurement arrangements.** The PCU within the MAHTP will be responsible for project procurement under the supervision of the MAHTP's DGTP who will sign the contracts. Procurement team members, including the procurement officer and procurement assistant, are under recruitment. During project preparation, procurement activities funded by the Project Preparation Advance (PPA) are managed by the FER (which became the RF in June 2019) for which a Procurement Capacity Assessment was conducted as part of project preparation. **The overall project risk for procurement is rated as High.**

C. Safeguards

(i) Environmental Safeguards

78. **The project triggers four World Bank Environmental Safeguards Policies: Operational Policy (OP)/Bank Procedure (BP) 4.01 (Environmental Assessment), OP/BP 4.04 (Natural Habitat), OP/BP 4.11 (Physical Cultural Resources), and OP/BP 4.36 (Forests).**

79. **As required by OP/BP 4.01, the GoM has prepared an Environmental and Social Impact Assessment (ESIA)** which identifies environmental and social impacts that emanate from civil works activities under Component 1. For civil works under Component 2 for which specific locations are not yet determined, the GoM has prepared an Environmental and Social Management Framework (ESMF) which was disclosed in-country on July 27, 2019 and on the World Bank's website on October 8, 2019.

80. **OP/BP 4.04 is triggered given the scope of rehabilitation and improvement works on secondary and provincial roads, and the potential opening of new areas for quarry and borrow pits that could affect natural habitats.** Civil works alone could affect nearby river systems and could induce impacts on nearby forests and other natural habitats. Some of the tertiary roads that will be identified during implementation may cross natural forests and grasslands and hence cause disturbance for wildlife.

81. **OP/BP 4.11 is triggered because road works may result in the possibility of 'chance finds' of cultural properties.** The ESIA for each road has assessed the impacts on physical cultural resources. 'Chance finds' procedures and mitigation measures are included in the ESIA and the Environmental and Social Management Plans (ESMPs) which was disclosed in-country on July 27, 2019 and on the World Bank's website on September 2, 2019.

82. **OP/BP 4.36 is triggered given the scope of rehabilitation and improvement works on RNs and RPs and the potential opening of new areas for quarries and borrow pits that could affect forest.** Civil works alone could induce impacts on nearby forests. Some of the tertiary roads that may be identified during the implementation phase may cross forest reserves in which case the ESMF has included screening for impacts and measures to mitigate them.



(ii) Social Safeguards

83. **The project is classified as a Category A due to the substantial level of social risks and impacts of its foreseen activities.** The project is expected to bring positive social impacts to its beneficiary populations but may have some negative impacts for which specific mitigation measures are proposed in the safeguard instruments. **The expected project activities trigger OP/BP 4.12 (Involuntary Resettlement).**

84. **Road rehabilitation works under Component 1 entail involuntary resettlement and OP 4.12 was triggered.** Two Resettlement Action Plans (RAPs) have been prepared, consulted on and disclosed²⁷ for works under Component 1. Most of the work's impact will be within the existing rights-of-way. However, 1,105 households will be impacted by Component 1 works, including minor and moderate effects on structures, crops, small businesses, and informal traders. The cost estimate for impacts on properties and livelihoods is US\$1.64 million. The GoM has committed to providing the required funding for financing the RAPs. **Since the precise location of activities under Components 2 and 3 are not yet defined, a Resettlement Policy Framework (RPF) has been prepared, consulted on, and disclosed in-country on July 27, 2019, and on the World Bank's website on October 8, 2019.**

(iii) Citizen Engagement

85. **The project will support citizen engagement activities, including:**

- (a) Developing detailed procedures for redress of grievances, including incidents of GBV and SEA with a survivor-centered approach;
- (b) Establishing a mechanism through multiple channels including a website, onsite registries, and a smartphone app to engage with the beneficiaries; providing feedback to complainants; and monitoring the status of resolution of grievances;
- (c) Undertaking campaigns for sensitizing the general public on the opportunity for registering grievances; and
- (d) Developing citizen monitoring committees to assist with receiving complaints from the communities.

86. **During implementation, the project will use a participatory approach, involving stakeholders in design and planning for implementation.** Gender and vulnerability issues will be factored into design, and the project is meant to bring more value to women, youth, and elderly people. The project will include a citizen engagement review mechanism conducted by the PCU. This approach will include (a) public consultations that measure the level of satisfaction of the population affected by the project; and (b) feedback from beneficiaries in the selection of specific interventions under Component 2.

(iv) Gender

87. **Gender equality in Madagascar has improved in some respects during the past few years. However, much remains to be done to overcome sociocultural practices and customs that hinder women's empowerment.** Female unemployment is higher than men's (12 percent compared to 8.2 percent). Furthermore, 92 percent of women in the labor force are in vulnerable employment, compared to 85 percent of men in the

²⁷ In-country disclosure of RAPs for RNS44 and RNS44 on July 27, 2019. Disclosure of RNS44 RAP on the Bank's website on August 31, 2019. Disclosure of RNS12A RAP on the Bank's website on October 1, 2019.



labor force. The project will identify gender disparities in the road sector (Component 4) and will propose specific measures that will be implemented under the project to increase women's opportunities and participation in the road sector, such as, for instance, ensuring that women are specifically targeted for work under the periodic maintenance to be provided by local communities.

88. **A preliminary review by the World Bank team indicates there are significant challenges to increasing women's participation in the road sector.** Employment in the construction sector is very low for women in Madagascar, totaling 5.5 percent of all employed women. Some of the challenges include attracting women to seek employment in the sector; recruiting women into the sector; and retaining and promoting women in sector-specific positions. Based on the diagnostic that will be carried under Component 4, the project could contribute to closing gender gaps in the road sector through, inter alia, the following types of activities:

- (a) Promoting women's participation in road rehabilitation through gender sensitization of the contractor and the RA and by requiring a quota for women in the bidding documents of the contractors; and
- (b) Designing a Gender Strategy and Action Plan for the MAHTP to address the women's barriers and facilitate entry into the road sector.

89. **The project will address the specific risks for women and children during the rehabilitation of the roads (see Section V).** Madagascar shows high prevalence rates of sexual and physical violence and a weak legal framework to protect women and girls from violence. Moreover, experience has shown that the influx of workers can increase GBV risks for communities where civil works are carried out, such as increasing the rates of SEA due to the changing power dynamics in communities that may exacerbate already existing harmful gender norms and behaviors. The project will address the increased risk of GBV, specifically SEA; sexual harassment in the workplace; and human immunodeficiency virus (HIV) that may arise from the presence of temporary workers in the intervened area.

(v) Grievance Redress Mechanisms

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

91. **In addition to the World Bank's GRS, the project will prepare and adopt a project-level grievance redress mechanism (GRM).** The GRM, through multiple channels including a website, onsite registries, a smartphone app, will address all project-related complaints at the local, regional, and national levels, including, but not limited to:

- (a) Corruption;
- (b) Non-respect of the rights of direct project beneficiaries;



- (c) Resettlement issues; and
- (d) GBV and labor issues.

92. As part of its M&E on citizen engagement, the project will track, as an indicator, the satisfaction rating of project beneficiaries (administered through a survey questionnaire) as well as the percentage of complaints addressed.

93. **The GRM will also include options that allow for the submission of confidential complaints that are related to GBV and SEA for adult and child survivors, including receiving complaints both written and in person by individuals trained in receiving complaints of such sensitive nature.** Along with strengthening the GRM system to handle sensitive GBV and SEA complaints²⁸, a referral pathway for survivor services will be identified such that when complaints are made, survivors are referred to receive appropriate care and treatment.

V. KEY RISKS

94. **The overall project risk rating is assessed to be Substantial.** The main risks to the project reflect the environmental and social issues associated with road works, the risks associated with labor influx²⁹, and possible capacity constraints within the MAHTP and the RA (formerly ARM) which are expected to support the PCU. To address the latter and the environmental and social issues associated with the civil works, adequate provision will be included within the project for project implementation, contract management and safeguards monitoring, and best practice guidance reflected in the project design (refer to Section III).

95. **Political and governance risk is assessed as Substantial.** With the December 2018 presidential elections, the country has just experienced its first constitutional and peaceful change in power since its independence. However, weak governance poses a substantial risk to political stability. The country has deep-rooted governance challenges that contribute to political fragility. Key drivers of fragility include influential networks that shift alliances to access rents, as well as social fragmentation, growth of a trafficking economy, and a nascent system of checks and balances, as discussed in the CPF. To mitigate these risks and ensure ownership by all key stakeholders, the project is developed through broad-based consultations with all stakeholders, line ministries, local communities, and key development partners.

96. **Sector strategies and policies risk is rated Substantial because of the lack of financial sustainability of road maintenance as described in Section I-B.** To mitigate this risk, the project will support the RF for the implementation of the action plan³⁰ for increasing its financial resources to address road maintenance.

97. **Technical design of project.** This is rated as Moderate. The GoM requested PPA funds from the World Bank to conduct and update the feasibility studies, engineering design, and safeguards documentation for the rehabilitation of secondary and tertiary roads considered under the project. For the feeder roads, where the

²⁸ The GRMs will include robust protocols to properly address all elements of managing SEA and GBV risk and complaints, and the project will include resources to support the implementation of such GRMs to ensure faster reporting and better resolution of complaints, including those related to GBV, SEA, and child abuse.

²⁹ The expected labor influx is about 60 non-local workers for Component 1, and about 100 non-local workers for Component 2.

³⁰ This was defined by the AfDB-financed technical assistance study to increase the financial resources of the FER (2017).



specific location may not be known at the time of board submission, framework documents for environmental and social safeguards will be prepared.

98. Institutional capacity for implementation and sustainability risk is assessed as Substantial. This risk reflects the institutional challenges of the road sector (refer to Section I) and the lack of technical capacity of key stakeholders including the MAHTP and the local authorities. Although the ARM (now RA) has a track record of implementing World Bank-financed operations, its performance is negatively affected by its low institutional capacity. In turn, this could affect the delivery and subsequent implementation of the project. The institutional capacity risk will be mitigated by setting up the PCU within the MAHTP and through intensive technical support to the PCU and project support for capacity building to the RA, RF and MAHTP.

99. The fiduciary risk is rated Substantial due to governance issues and weak oversight and controls. Although the RA and MAHTP are currently staffed with qualified and experienced FM and procurement specialists that could support the PCU if needed, the economic situation could lead to attempts to divert IDA resources to non-eligible uses. Further capacity development on World Bank procurement systems will be provided through engagement with the PCU, MAHTP, and ARM in the development of the PPSD and the processing of contracts using the Systematic Tracking of Exchanges in Procurement (STEP) as preparation of the project is progressing. Further FM and Procurement Capacity Assessments may be carried out to determine the level of capacity enhancement.

100. Environmental and social risk rating is High. The road works under the proposed project could lead to further wildlife habitat fragmentation and all civil works could engender transient construction-related disturbances such as noise and vibration. Social issues will more likely be related to: (a) prevention of HIV and other sexually transmitted diseases, any induced GBV, SEA, and child labor and increased school dropout; (b) work site health, occupational safety, and sanitation; (c) crime prevention and management; (d) involuntary resettlement and culture-related issues; (e) damage to properties and related compensations; (f) competition for labor and wages for local community members; (g) sexual harassment prevention; and (h) road safety and traffic management in work zones and after the upgrading is complete.

101. The contracts documents for works will include: (a) 'particular conditions of contract' (PCC) relating to labor influx, including requirements for a code of conduct and (b) key safeguards documents such as the ESMP, Labor Influx Management Plan and/or Workers' Camp Management Plan, Site Traffic Management Plan, or other site-specific relevant documents. This will ensure follow-up actions including staffing by the contractor and consultant. All of this has been agreed up front with the MAHTP, and RA, as part of the Environmental, Social, Health, and Safety (ESHS) Enhancement Plan, during project preparation.

102. The project will mitigate the risk of traffic accidents through specific road safety interventions on the project roads. Road safety features such as guardrails, horizontal and vertical signage, reflectors, as well as traffic calming measures throughout villages and towns will be included in the civil works. Further, civil works will be subjected to safety audits throughout the planning, design, construction, and commissioning phases. The corrective measures of the audits will be implemented by the contractors using the provisional sums built-in the works contracts. Further, as lack of routine maintenance is a key driver for accidents involving pedestrians in rural areas³¹, the GoM will allocate resources from its RF throughout the duration of the project to ensure regular

³¹ In rural areas, when road shoulders are obstructed by overgrown vegetation, pedestrians walk on the travel lanes, thus increasing fatality risks.



routine maintenance of the secondary roads improved by the project. This is included as a dated covenant of the project.

103. **GBV and SEA risks.** The GBV risk for the project has been rated high due to a variety of factors (both context and project related), including high rates of poverty, child marriage, few national laws protecting women and girls from violence, and few services for survivors. Such risks are likely to increase with the presence of temporary workers. To mitigate the identified high risk for GBV and SEA in the project areas, a GBV prevention and response action plan (see Annex 3) was developed based on the 'GPN for Addressing Gender Based Violence in IPF involving Major Civil Works (June 2018)', which includes:

- (a) A detailed risk assessment of GBV/SEA risks for the project areas was conducted during preparation;
- (b) Mapping of service providers for survivors of GBV, including formal (medical, psychosocial, legal and justice, safety and security, and livelihood opportunities) and informal resources;
- (c) Provision of services ranging from prevention to incident resolution by bridging the gap between existing national and local services for addressing GBV and the hiring of a specialized NGO to provide additional related support services;
- (d) Addressing GBV risks through the procurement process with the adoption of code of conduct³² (CoC) by any contractor³³ working on the project;
- (e) Establishment of a GRM with a survivor-centered approach designed specifically for reporting GBV/SEA incidents and to respect confidentiality in coordination with local leading partners, including the United Nations Population Fund (UNFPA);
- (f) Community awareness on SEA, GBV, code of conduct (CoC), and entry points for reporting GBV/SEA cases;
- (g) Hiring of a full-time GBV specialist, and a full-time social safeguard specialist as part of the core team of the PCU by project effectiveness (see Annex 1, Table 1.1); and
- (h) Oversight through third party monitoring with the recruitment of a specialized NGO before start of civil works.

104. The entities involved in project implementation (such as the RA and MAHTP) have received GBV sensitization training on the recommendations of the GPN. The GBV and SEA prevention and response action plan is provided in Annex 3.

³² Code of conduct includes explicit description of compliance with appropriate and respectful gender interactions and the consequences in case of non-compliance. The code of conduct will be translated into the local languages in addition to French and read out to employees to ensure that they are aware of what they sign up for.

³³ Contractors and supervising engineers will be required to include in their staffing the appropriate number of social and environmental safeguards specialists that can actively address any safeguards-related issues and, particularly, potential GBV, SEA, and child abuse impacts.



VI. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Madagascar

Connectivity for Rural Livelihood Improvement Project

Project Development Objectives(s)

The Project Development Objective is to enhance transport connectivity in selected rural areas to improve access to social and economic opportunities of communities.

Project Development Objective Indicators

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Enhance connectivity in selected rural areas to improve access to social and economic opportunities								
Rural population with access to an all-season road (Number)		310,000.00	341,000.00	403,000.00	465,000.00	527,000.00	589,000.00	620,000.00
Number of rural women with access to an all-season road (Number)		158,000.00	173,800.00	205,400.00	237,000.00	268,600.00	300,200.00	316,000.00
Travel time from Fort-Dauphin to Vangaindrano (Hours)		24.00	16.00	13.00	11.00	8.00	8.00	8.00
Travel time from Marovoay to Vohidiala (Hours)		8.00	5.50	4.60	3.80	3.00	3.00	3.00
Number of schools in the project areas with improved road access (Number)		0.00	14.00	42.00	70.00	97.00	125.00	139.00



Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Number of health centers in the project areas with improved road access (Number)		0.00	5.00	15.00	25.00	35.00	45.00	50.00
Quantity of Litchi from the project areas (South-East) transported to markets (Metric ton)		2,000.00	3,300.00	5,900.00	8,500.00	11,100.00	13,700.00	15,000.00

Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Rehabilitation of Secondary Roads in priority regions								
Roads rehabilitated (CRI, Kilometers)		0.00	75.00	100.00	124.00	148.00	148.00	148.00
Number of new bridges constructed (spans greater than 20 meters) (Number)		0.00	0.00	0.00	0.00	1.00	1.00	1.00
Number of GBV and HIV/AIDS awareness-raising campaigns carried out in the project areas (Number)		0.00	15.00	16.00	17.00	18.00	19.00	20.00
Improvement of Provincial, and Communal Roads in the same priority regions								
Roads rehabilitated (CRI, Kilometers)		0.00	0.00	75.00	200.00	300.00	400.00	500.00
Roads rehabilitated - rural (CRI, Kilometers)		0.00	300.00					500.00



Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Promotion of Digital Solutions in targeted rural communities								
Digital platform for transport and agriculture services deployed (Yes/No)		No	No	No	Yes	Yes	Yes	Yes
Number of beneficiaries of Digital Platform for Transport and Agricultural Services (Number)		0.00	0.00	0.00	2,000.00	4,000.00	6,000.00	7,500.00
Number of Women beneficiaries of Digital Platform for Transport and Agricultural Services (Number)		0.00	0.00	0.00	800.00	1,600.00	2,400.00	3,000.00
Number of rural people trained on Digital Literacy (Number)		0.00	0.00	500.00	1,000.00	2,000.00	3,000.00	4,000.00
Number of rural women trained on Digital Literacy (Number)		0.00	0.00	200.00	400.00	800.00	1,200.00	1,600.00
Capacity Building and Project Management								
Road Accident Data Management System (RADMS) established (Yes/No)		No	No	No	Yes	Yes	Yes	Yes
Road Safety Strategy developed (Yes/No)		No	No	Yes	Yes	Yes	Yes	Yes
Percentage of grievances recorded and processed as per the project's GRM (Percentage)		0.00	100.00	100.00	100.00	100.00	100.00	100.00
Kilometers of road network		0.00	0.00	0.00	2,000.00	4,000.00	5,000.00	6,000.00



Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
processed by the Road Asset Management System (Kilometers)								
Road asset management system is used to inform annual road maintenance plan (Yes/No)		No	No	No	No	Yes	Yes	Yes
Share of construction workers that have signed the Code of Conduct (Percentage)		0.00	100.00	100.00	100.00	100.00	100.00	100.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Rural population with access to an all-season road	The number of the rural population living within 2 kilometers of a road in good condition in the project areas.	Annual	Reports	Gridded population and road condition datasets.	Road Agency
Number of rural women with access to an all-season road	Number of rural women living within 2 Km of a road in good condition in project areas	Annual	Reports	Gridded women population and road condition datasets	Road Agency
Travel time from Fort-Dauphin to Vangaindrano	The travel time on RNS12A from Fort-Dauphin to	Annual	Reports	Duration of travel using a standard vehicle	Road Agency



	Vangaindrano measured in hours. The current travel time is 24 hours. After project completion it is expected to reduce by 16 hours.				
Travel time from Marovoay to Vohidiala	The travel time on RNS44 from Marovoay to Vohidiala measured in hours. The current travel time is 6 hours. After project completion it is expected to reduce by 3 hours.	Annual	Reports	Duration of travel using a standard vehicle	Road Agency
Number of schools in the project areas with improved road access	Number of schools within 4 kilometers of an improved road	Annual	Reports	GIS data set	PCU
Number of health centers in the project areas with improved road access	Number of health centers within 4 kilometers of an improved road	Annual	Reports	GIS data set	PCU
Quantity of Litchi from the project areas (South-East) transported to markets					

Monitoring & Evaluation Plan: Intermediate Results Indicators

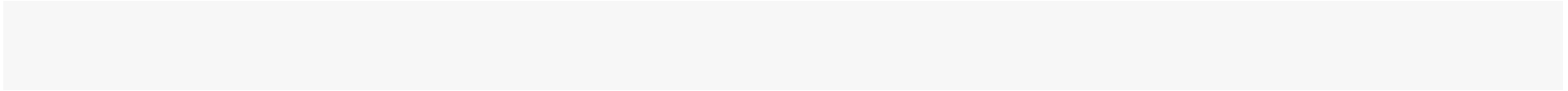
Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Roads rehabilitated		Annual	Reports	Field visits	Road Agency
Number of new bridges constructed (spans greater than 20 meters)	Construction of Manambondro Bridge on RN12A	Annual	Reports	Field visits	Road Agency



Number of GBV and HIV/AIDS awareness-raising campaigns carried out in the project areas	Measures number of awareness raising campaigns	Annual	Reports	Reports	PCU
Roads rehabilitated		Annual	Reports	Field visits	Road Agency
Roads rehabilitated - rural		Annual	Reports	Field visits	Road Agency
Digital platform for transport and agriculture services deployed	Deployment of platform in targeted areas	Annual	Reports	Reports	PCU
Number of beneficiaries of Digital Platform for Transport and Agricultural Services	Measures the number of rural people that use the digital platform services	Annual	Reports	Surveys	PCU
Number of Women beneficiaries of Digital Platform for Transport and Agricultural Services	Measures the number of rural women that use digital platform services	Annual	Reports	Surveys	PCU/NGO
Number of rural people trained on Digital Literacy	Measures the number of rural people receiving training on Digital Technology, Climate Resilience and Smart Agricultural practices to be delivered by NGO hired by the project. Each training session will be for one full day and will be delivered for 5 days a week at the Community Information Kiosks or in a Mobile Training Center to be funded by the project.	Annual	Reports	Surveys	PCU/NGO
Number of rural women trained on Digital Literacy	Number of rural women trained on Digital Literacy	Annual	Reports	Surveys	PCU/NGO



Road Accident Data Management System (RADMS) established	Establishment of a system to record and monitor road accidents	Annual	PCU Implementation Reports	Reports	PCU
Road Safety Strategy developed	Road safety strategy	Monthly	Reports	Reports	PCU
Percentage of grievances recorded and processed as per the project's GRM	Measures the performance in keeping track of grievances	Monthly	Reports	Reports	PCU/NGO
Kilometers of road network processed by the Road Asset Management System	Number of kilometers of road network processed by the Road Asset Management System established by the project	Annual	Reports from Road Asset Management System	Reports from Road Asset Management System	Road Agency
Road asset management system is used to inform annual road maintenance plan	Road Asset Management System established by the project is used to inform annual road maintenance plan	Annual	Reports from Road Asset Management System	Road Asset Management System is used to generate the annual maintenance plan	Road Agency
Share of construction workers that have signed the Code of Conduct	Ratio of cumulative number of construction workers that have signed the code of conduct and the total number of construction workers recruited by the contractors.	Annual	Periodic report of the supervision engineer and the specialized NGO	Reports	MAHTP/PCU/Supervising Engineer/NGO





ANNEX 1: Detailed Project Description

COUNTRY: Madagascar

Connectivity for Rural Livelihood Improvement Project

1. The proposed project will enhance rural connectivity in the regions of Alaotra Mangoro, Anosy, and Atsimo-Atsinanana through climate-resilient interventions on secondary road, tertiary road, RP, and RC networks. The project components are detailed in the following paragraphs.

A. Project Components

Component 1: Rehabilitation of Secondary Roads in Priority Regions (estimated cost US\$108.0 million equivalent financed by IDA)

2. Component 1 primarily focuses on the climate-resilient rehabilitation of the secondary road network in priority regions, the ‘missing middle’ which is critical for continuity and connecting rural roads with the main network, thus connecting rural areas to secondary cities, including design studies and supervision of works. It supports the rehabilitation of about 148 km of secondary roads as follows:

- ***Rehabilitation of a 113 km section of RNS44 from Marovoay to Vohidiala (US\$73 million).*** RNS44 is the only connection between the rice basin of Ambatondrazaka and the main trunk network in the Alaotra Mangoro region. The Borrower requested retroactive financing up to US\$28 million to fund the first 40 km, from Marovoay to Amboasary;
- ***Improvement of a section of about 35 km of RNS12A from Masianaka to Manambondro (US\$25 million).*** RN12A is the only road that provides access to the poorest districts in the country located in the regions of Anosy and Atsimo-Atsinanana; interventions will include, among other things, rehabilitation or reconstruction of hydraulic structures, rehabilitation of pavement, and improvement of road safety facilities;
- ***Construction of Manambondro bridge on RNS12A to replace the existing ferry crossing (US\$10 million).***

3. The works interventions will include, among other things, construction of bridges, rehabilitation or reconstruction of hydraulic structures, rehabilitation of roads and their pavements, and improvement of road safety facilities. These works will be informed with consideration of risks of natural disasters and climate change impacts.

Component 2: Improvement of Provincial, Communal, and Unclassified Roads in Priority Regions (estimated cost US\$20.0 million equivalent financed by IDA)

4. This component will finance improvement works on sections of RPs, RCs, and unclassified roads to enhance road accessibility in selected districts in the Alaotra Mangoro, Anosy, and Atsimo-Atsinanana regions, including design studies and supervision of works. Roads will be selected using a multi-criteria analysis based on agricultural production, access to schools, access to health centers, and other factors, including budget constraints and climate vulnerability. The total road length that will be supported under this component will be



determined based on the standards to which they will be improved, the method of implementation, as well as the number of participating districts and communes that have enough capacity for implementing projects.

5. It is foreseen that the improvement of feeder roads (RPs, and RCs) will cover:

- (a) Anosy (Tolagnaro district) and Atsimo-Atsinanana (Vangaindrano district) (estimated US\$10 million)
 - Improvement of about 250 km of RPs and RCs
 - 25 km of RP118: From Fort-Dauphin towards the north
 - 55 km of feeder connecting to RP118: Feeders connecting to 25 km of rehabilitated RP118 as mentioned above
 - 170 km of feeder connecting to RNS12A
- (b) Alaotra Mangoro region (estimated US\$10 million)
 - 250 km of feeder connecting to RNS44 (to be identified during project implementation)

6. The types of interventions include, among others, reconstruction or rehabilitation of hydraulic structures, graveling, and surface treatment.

Component 3: Promotion of Digital Solutions in Targeted Rural Communities (estimated cost US\$4.0 million equivalent financed by IDA)

7. Although overall mobile Internet connectivity in the country is low at 33 percent,³⁴ most people in rural areas in the districts targeted by the project have access to broadband Internet via 3G and 4G services. Moreover, the two corridors of interest (for example, RNS44 and RNS12A) in this project are already lined by high-capacity fiber optic cables installed by Telma, a leading telecommunications service provider in the country. The project proposes to leverage existing broadband connectivity infrastructure and services to support the implementation of innovative digital solutions in the targeted areas on a pilot basis. **This component will support the emergence of a digital innovation ecosystem aimed at providing local content, applications, and services for rural development in the rural areas targeted by the project.**

8. In order to promote digital solutions in the target areas, the project will first provide technical assistance by hiring a consultancy that will help define the scope and delivery modalities of digital interventions through a diagnostic study that will include beneficiary surveys and stakeholder consultations. Based on the recommendations of the consultancy, the project will hire a Solutions Provider (a Systems Integrator or Vendor of Digital services) to develop the Digital Platform, smartphone and featurephone applications, provide Agroclimatic content, equip the kiosks with digital infrastructure, and deliver services to the beneficiaries. For the benefit of those rural dwellers that do not own a featurephone or a smartphone, the project will help build Community Information Kiosks and warehouses by hiring a civil works contractor. The kiosks will serve as aggregation points in the delivery of digital services to rural households that do not have access to mobile phones. To ensure sustainability, the digital solutions provider will also operate and maintain the platform and services for an extended period of time (up to five years). The solutions provider will also provide training to the kiosk

³⁴ Global System for Mobile Communications Association (GSMA) Intelligence Report, 2018.

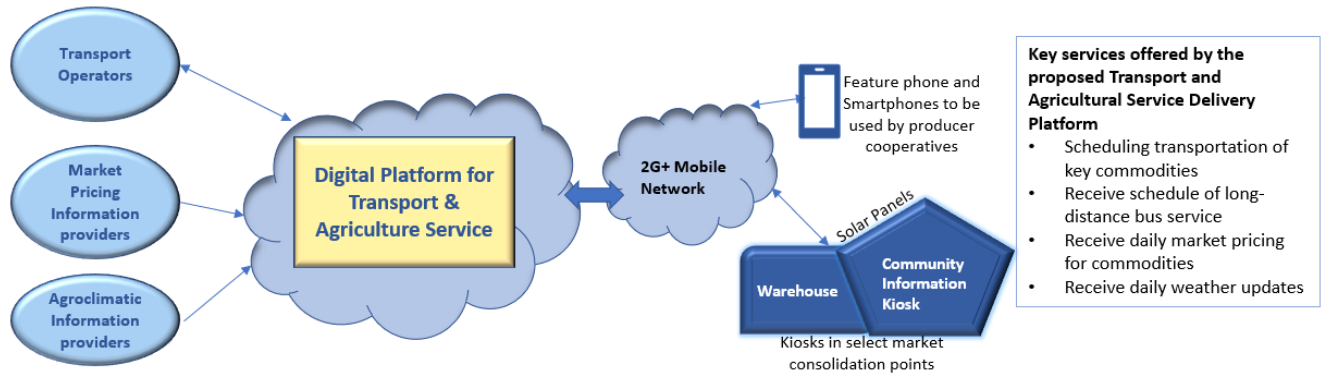


operators. An analysis examining the gender gaps in access to ICT will be conducted to ensure women and men have the same opportunities. The component will consist of the following activities:

- **Technical Assistance in the form of Project Management Consultancy (PMC).** PMC will be provided to:
(a) study requirements for the design of a Digital Platform for Transport and Agricultural Services and the user communities in select project areas; (b) explore options for business models for operations and maintenance of Community Information Kiosks and warehouses in coordination with relevant rural development projects such as the Integrated Growth Poles of Agroindustry Project in the South of Madagascar funded by AfDB; (c) develop bidding documents for the procurement of digital hardware and software for the implementation of the Digital Platform for Transport and Agricultural Services and applications; (d) develop bidding documents for the construction of the Community Information Kiosks with attached warehouses; and (e) develop Terms of References (ToRs) for engaging entrepreneurs to operate and maintain the Community Information Kiosks.
- **Procurement of digital infrastructure solution for the implementation of the Digital Platform for Transport and Agricultural Services and applications.** This activity will fund the development of applications and services for farmers and producers directly addressing climate-change-related issues: water management, soil monitoring, weather-forecast-based agriculture. The following services will be offered by the Digital Platform for Transport and Agricultural Services:
 - (a) Scheduling of transportation (pickup and drop-off) of commodities from and to the designated market locations along RNS12A and RNS44; this scheduling service will also be used to schedule the drop-off of health kits, fuel, and other essential goods and commodities at the Community Information Kiosks and Warehouse that would act a local distribution point;
 - (b) Scheduling of long-distance bus services serving communities along RNS12A and RNS44;
 - (c) Daily market pricing updates for select commodities (that is, litchi, sugarcane, onion, cassava, rice); and
 - (d) Daily updates on weather, soil condition, crop-specific solutions, and so on.
- **Procurement of minor civil works for the construction of Community Information Kiosks with warehousing facilities in select market consolidation points along RNS12A and RNS44.** Alternatively, the project could finance the procurement of prefabricated appropriately sized park-homes or mobile homes that would serve as information kiosks and warehouses.
- **Technical assistance to build the capacity of kiosk entrepreneurs and rural communities on digital literacy through targeted outreach and training programs.** This activity will engage the services of an NGO to run the kiosk and promote digital literacy among targeted rural people through outreach and communication campaigns.



Figure 1.1: Proposed Architecture of the Delivery of Key Transport and Agriculture Services to Rural Communities Along RNS12A and RNS44



Component 4: Capacity Building and Project Management (estimated cost US\$8.0 million equivalent financed by IDA)

9. This component will finance capacity building, project management, and institutional-strengthening activities through the provision of goods, training, and consulting and non-consulting services. The proposed activities are as follows:

- **Road asset management.** In support of the MAHTP, ARM and local authorities, the activities will include, among other things: (a) improvement of the existing road asset management system; (b) updating of road condition data; and (c) capacity building of local communes for the management of their road assets.
- **Institutional support to the RA and the RF.** It includes: (a) support to the newly created RA (replacing the former ARM) to become an autonomous agency entrusted with full management responsibility of the entire classified road network and (b) support to the RF for the implementation of the action plan³⁵ for increasing its financial resources to address not only road maintenance but to also be able to contribute to investment in the road sector.
- **Road safety.** The project will support the implementation of the activities identified by the National Road Safety Strategy and Action Plan prepared under Global Road Safety Facility (GRSF) financing, including, among other things, (a) the definition and adoption of a national road safety strategy; (b) the development of a Road Accident Data Management System (RADMS); and (c) road safety audits throughout the design, construction, and commissioning phases of the secondary roads financed under the project.
- **Climate resilience.** MAHTP and RA’s capacity will be built for the inclusion of climate resilience in planning and management of road infrastructure through, among other things, the development of climate risk screening tools.

³⁵ This was defined by the AfDB-financed technical assistance study to increase the financial resources of the FER (2017).



- **Main public engineering university.** Support to the main engineering university on civil engineering and digital technology will be provided. This will include facilitating opportunities for female engineering students to participate in internships or traineeships within the ARM or other relevant agencies.
- **Geo-spatial planning.** Support to MAHTP for building skills in geo-spatial planning and analysis in Madagascar will be provided. Specifically, this component will modernize the geo-spatial platforms and services by funding the procurement of geo-spatial hardware, software, and applications. The following two activities will be supported, among others: (a) technical assistance in the form of PMC to study the current geo-spatial ecosystem in Madagascar, identify gaps, and recommend options for modernization; (b) procurement of hardware, software, and applications required to modernize the geo-spatial ecosystem in Madagascar; and (c) capacity building of relevant stakeholders to absorb and operationalize the digital infrastructure and solutions for geo-spatial planning and analysis across multiple sectors.
- **Gender.** Support and build capacity of MAHTP and RA for the identification and mitigation of gender disparities and mainstreaming of citizen engagement in the road sector.
- **Project management and safeguard monitoring.** Activities to be financed include (a) salary of key personnel of the PCU staff; (b) external financial audits; (c) operating costs; (d) technical assistance and training cost (e) acquisition of office furniture, equipment, and logistics for the PCU and ARM; and (f) monitoring and evaluation. This includes activities designed to prevent and mitigate GBV including SEA risks linked to project civil works sites, as well as their monitoring. These activities will be implemented together with a specialized NGO with extensive experience in working on GBV matters in Madagascar. Recognizing that there is a significant risk of GBV in the project areas, the project has developed an approach based on the World Bank’s ‘GPN for Addressing Gender Based Violence in IPF involving Major Civil Works’. Annex 3 provides details of the GBV Prevention and Service Provision Action Plan.

Table 1.1: Estimated costs and timeframe of safeguard monitoring activities financed under Component 4

Description	Timeframe	Amount (US\$)
One Full-time social safeguard Specialist for the PCU (for five years)	By effectiveness	150,000
One Full-time environmental safeguard specialist for the PCU (for five years)	By effectiveness	150,000
One Full-time GBV specialist for the PCU (for five years)	By effectiveness	150,000
Recruitment of two specialized NGOs for GBV monitoring and GRM (one NGO per project area) ³⁶	Before start of civil works	320,000
Recruitment of two GBV service providers (one per project area)	Before start of civil works	200,000
Setting up citizen monitoring committees for GRM	Before start of civil works	30,000
Total Costs financed under Component 4		1,000,000

³⁶ For works of the first 40 km of RNS44 under retroactive financing, a local firm specialized in safeguard has been recruited for overseeing: (i) RAP implementation, (ii) monitoring GBV aspects as well as (iii) establishing a GRM.



Component 5: Contingent Emergency Response

10. This component will facilitate access to rapid financing by allowing reallocation of uncommitted project funds in the event of a natural disaster, by a formal declaration of a national emergency and upon a formal request from the GoM. Component 5 will use IDA Immediate Response Mechanism.

B. Project Cost and Financing

11. **The project lending instrument is IPF.** The project costs of US\$140 million are financed by an IDA credit. The duration of the project is five years, reflecting the complexity of the implementation involving central and local governments and the time necessary for implementing key institutional-strengthening activities.

Table 1.2: Project Costs (US\$, millions)

Project Components	Project Cost	IDA Financing
Rehabilitation of Secondary Roads in Priority Regions	108.0	108.0
Improvement of Tertiary, Provincial, and Communal Roads in the Same Priority Regions	20.0	20.0
Promotion of Digital Solutions in Targeted Rural Communities	4.0	4.0
Capacity Building and Project Management	8.0	8.0
Contingent Emergency Response	0.0*	-
Total Costs	140.0	140.0

Note: * = Component 5, Contingent Emergency Response, will be reallocated resources to respond to an eligible emergency upon the request of the GoM and agreement of World Bank management.



ANNEX 2: Implementation Arrangements and Support Plan

COUNTRY: Madagascar

Connectivity for Rural Livelihood Improvement Project

Project Institutional and Implementation Arrangements

- 1. The project will be housed within the MAHTP.** The institutional arrangements for project preparation and implementation of its activities are as detailed below.
- 2. Project Steering Committee.** An SC will be chaired by a representative of the MAHTP and will include, among others, representatives of the following ministries: Transport and Meteorology, Interior and Decentralization, Economy and Finance, Agriculture, Health, Education, ICT, and the Minister of Population, Social Protection and Gender. The SC will ensure that throughout the life of the proposed project, there is adequate strategic direction, overall oversight, and coordination with other line ministries. The SC will approve the AWP&B. The SC will meet at least once a year and as frequently as may be needed.
- 3. Project Technical Committee.** A TC will be chaired by the PC and will include designated technical experts from the MAHTP; the ARM (the RA); the RF; the Directorate of Land Transport of the MTTM; the Ministry of Agriculture; the General Directorate of Public Debt of the MEF; the regions of Alaotra Mangoro, Anosy, and Atsimo-Atsinanana; and the Integrated Growth Pole Program and other designated technical representatives, as detailed in PIM. The TC will ensure technical oversight, review AWP&B, and ensure that the proposed project meets its overall objectives. The TC will meet as frequently as may be needed.
- 4. Project Coordinating and Implementation Unit.** The PCU, which will be strengthened for project management and fiduciary aspects, will be housed in the MAHTP under the Secretary General of the ministry and will be responsible for: (a) preparation and consolidation of AWP&B; (b) implementation, contract management, coordination, and monitoring of all project-related activities; (c) production of periodic implementation reports; (d) maintenance of records and accounts for all transactions related to the PCU and the project; (e) execution of the annual audit of the entire project and preparation of consolidated annual financial statements and IFRs; (f) monitoring of the various activities supported under the project, including management of the environmental and social safeguards aspects and preparation of quarterly Activity Progress Reports (one environmental specialist and one social development specialist, both full time position); (g) monitoring and consolidation of the M&E criteria as agreed with the Borrower; (h) procurement and FM; and (i) preparation and organization of the SC and TC meetings and the required documentation for the meetings.
- 5. Implementing Agency (IA).** The implementing entity for the project is the PCU, on behalf of the MAHTP. The implementation capacity of the PCU will be strengthened through hiring of a qualified PC, social safeguards specialist, environmental specialist, GBV specialist, FM officer, internal auditor, accountant, procurement officer and procurement assistant, and relevant technical specialists as detailed in the PIM. All contracts for PCU staffing and project implementation (works contractors, goods suppliers, consultants, and consulting firms) will be signed by the Secretary General of the MAHTP. The national technical entities will be involved through arrangements with the PCU as indicated below.



6. **The RA (formerly ARM) will be technically involved in Component 1.** RNS44 and RNS12A are secondary roads falling under the ARM's responsibility. The ARM will be involved in procurement of contractors for works and consultants for supervision of works (contractors and consultants are recruited by the PCU). The RA will also actively take part in the commissioning of works as it will take over the secondary roads once rehabilitated under the project.

7. **Local authorities (districts and communes) in Alaotra Mangoro, Anosy, and Atsimo-Atsinanana will be technically involved in Component 2.** With the support of the regional directorates of the MAHTP, local governments will be actively involved in planning the interventions on the RP and RC networks under Component 2. This arrangement will promote decentralization and build capacity in local government entities.

Financial Management

8. **An FM Assessment of the implementing unit of the Madagascar Transport Connectivity Project under the MAHTP was carried out in April 2019.** The objective of the assessment was to determine whether the MAHTP has acceptable FM arrangements in place to ensure that project funds will be used only for intended purposes, with due attention to considerations of economy and efficiency. The FM Assessment was carried out in accordance with the World Bank Policy and Directive on IPF.

9. Arrangements are acceptable if they can accurately record all transactions supporting the preparation of reliable financial statements, can safeguard the project's assets, and are subject to auditing arrangements acceptable to the World Bank.

10. In the past, the MAHTP outsourced the fiduciary functions to national specialized agencies such as the FER³⁷ and ARM.³⁸ Given the limited experience with IDA FM procedures, it was agreed that a dedicated PCU will be set up within the MAHTP to implement the project. Provisions have been made in the project preparation advance to implement the key mitigation measures.

11. **The overall FM risk rating is assessed as Substantial and is expected to be moderate once the mitigation measures are implemented.**

12. **Country Public Finance Management situation and use of country system.** Madagascar's overall fiduciary risk, including fraud and corruption risk, is high. The 2014 PEFA self-assessment indicates that limited progress has been made on improving the credibility of the budget. A PEFA self-assessment was carried out in 2017 covering FY2014–2016. The report reflected the impact of the political crisis on PFM reforms implementation, resulting in weaknesses in budget reliability and the management of assets. Nevertheless, improvements were noted in various areas such as the transparency of public finances, management of liabilities, and reporting. The GoM must continue to respond to challenges in some areas. The World Bank-funded Public Sector Services Delivery and Accountability Project (P150116), effective in March 2017, is supporting some PFM reforms to improve revenue management and local service delivery nationwide.

³⁷ The FER has been managing the PPA of this proposed project.

³⁸ The ARM implemented the Emergency Infrastructure Preservation and Vulnerability Reduction Project (P132101) at a cost of US\$102 million. The project ended in June 2018.



13. **Project activities’ descriptions.** The PDO of this project estimated at US\$140 million is to enhance road connectivity in selected rural areas in support of economic growth and livelihood of communities.

Table 2.1: FM Action Plan

FM Pillar	Action	When	By Whom
Internal Control System	Adopt a PIM (including FM procedures)	By effectiveness	MAHTP
Accounting	Recruit an FM officer	By effectiveness	MAHTP
	Install an accounting software	By three months after effectiveness	MAHTP
	Recruit a senior accountant and a financial assistant	By three months after effectiveness	MAHTP
Financial Reporting	Agree with the World Bank on the format of the Interim Unaudited Financial Report	Completed	MAHTP
External Audit	Recruit an external auditor on a competitive basis	By six months after effectiveness	MAHTP
Internal Audit	Recruit a qualified internal auditor on a competitive basis	By three months after effectiveness	MAHTP

14. **Internal Control System.** The Internal Control System will comprise an SC to oversee project activities, an FM procedures manual to define control activities, an internal auditor to ensure the adequacy of the controls in place and to support with governance and risk management, and the General Inspectorate (IG) of the MAHTP to evaluate the performance of the overall Internal Control System. The FM procedures manual will include different sections: planning and budgeting, internal audit, fund flows, accounting, financial reporting, and external audit.

15. **Planning and Budgeting.** The PCU will prepare a detailed AWP&B, which should be approved by the Project SC. The PCU will submit the approved AWP&B to the World Bank, for comments, before the end of previous calendar year. The budget will be monitored through the accounting system.

16. **Accounting.** The project accounting system will be maintained on a modified accrual cash basis with disclosure of commitments and will comply with the Malagasy General Chart of Accounts (*Plan Comptable Général* 2005) which is broadly in line with the International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS). The PCU will set up an accounting software adequate for project accounting. The software must have all modules needed for project FM (general accounting, cost accounting, contract management, fixed assets management, preparation of withdrawal applications, interim financial reports, and annual financial statements).

17. **Financial Reporting: Interim Financial Reporting.** The PCU will submit the Interim Financial Report to the World Bank within 45 days after the end of the calendar quarterly period. The format of the Interim Financial Report has been agreed upon during appraisal.



Table 2.2: Financial Reporting Requirements

Report	Deadline	Responsible
Interim Financial Report	45 days after the end of the quarter	PCU

18. **Annual Financial Reporting.** The PCU will produce Project Annual Financial Statements, which will comply with the IAS and World Bank requirements.

19. **Auditing.** The PCU will submit Audited Project Financial Statements (PFS) satisfactory to the World Bank every year within six months after closure of the fiscal year. A single opinion on the Audited PFS in compliance with International Audit Standards will be required. In addition, a Management Letter will be required. The Management Letter will contain the auditor’s observations, comments, and recommendations for improvements in accounting records, systems, controls, and compliance with financial covenants in the Financial Agreement. The PCU should recruit an independent auditor acceptable to the World Bank by six months after the project effective date.

Disbursements

20. Disbursements under this project will be carried out in accordance with the provisions of IDA Disbursement Guidelines (World Bank Disbursement Guidelines for Projects, dated February 2017), the Disbursement and Financial Information Letter, and the Financing Agreements. The disbursement methods (advances, reimbursement, direct payment, and special commitment) for the project is indicated in the Disbursement Letter.

21. The PCU will open and manage a designated account at the Central Bank of Madagascar (*Banque Centrale de Madagascar*, BCM) in United States dollar. The designated account will be replenished through the submission of withdrawal applications. Replenishment (requests for reimbursement) and reporting on the use of advances will be accompanied by a Statement of Expenditure and records required by the World Bank for specific expenditures in the Disbursement and Financial Information Letter. All supporting documentation will be retained at the PCU and must be made available for periodic review by the World Bank’s missions and external auditors.

Table 2.3: Disbursement Categories

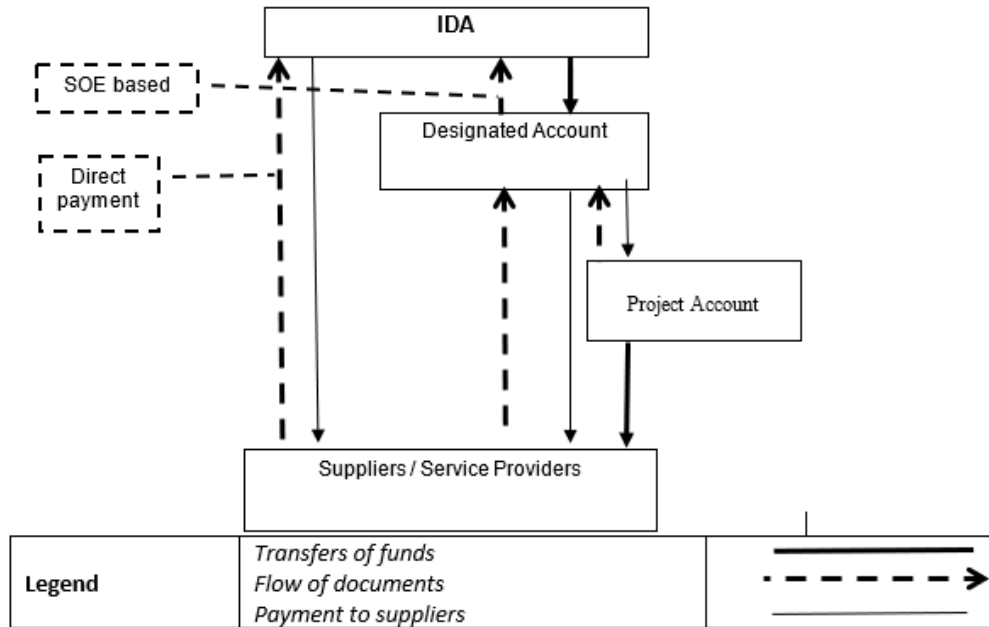
Category	Amount of the Credit Allocated (expressed in SDR)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, works, non-consulting services, consulting services, and Incremental Operating Costs for Part 1(i) of the Project	53,500,000	100%
(2) Goods, works, non-consulting services, consulting services, Training and	48,000,000	100%



Incremental Operating Costs for the Project (except for Part 1(i) of the Project)		
(3) Emergency Expenditures under Part 5 of the Project	0	100%
(4) Refund of Preparation Advance	1,200,000	Amount payable pursuant to Section 2.07 (a) of the General Conditions
TOTAL AMOUNT	102,700,000	

22. **Retroactive financing.** The Borrower requested retroactive financing to fund RNS44 works.³⁹ In this context, the GoM may make withdrawals up to an aggregate amount not to exceed SDR 20.6 million made before the date of the Loan Agreement but on or after October 18, 2019, for eligible expenditures under agreed categories.

Figure 2.1: Funds Flow Chart



³⁹ In accordance with World Bank policies, retroactive financing is permitted under the following conditions: (a) the activities financed are included in the project description and are procured in accordance with the applicable World Bank procurement rules; (b) such payments do not exceed 20 percent of the loan amount; and (c) the payments were made by the Borrower not more than 12 months before the expected date of the Loan Agreement signing.



Table 2.4: FM Risk Level Supervision Plan

Action	Description	Frequency
Desk reviews	Interim Financial Reports review; Review of the audit report on the financial statements of the project; Review of other relevant information such as internal audit reports.	Quarterly Annually Continuous as they become available
On site visits	Review of the overall operation of the FM system; Monitoring of actions taken on issues highlighted in audit reports, auditors' Management Letters, internal audit and other reports; Transaction review (if needed)	Twice a year As needed As needed
Capacity building support	FM training sessions for regional and central staff provided by the World Bank and regular FM meetings	During implementation and as and when needed

Table 2.5: FM Risk Assessment and Mitigation Measures

Risk	Risk	Risk Mitigating Measures Incorporated into Project Design	Effectiveness Condition	Residual Risk Rating
Inherent risk	H			S
Country level PFM reform is experiencing implementation delays and weaknesses identified by the PEFA self-assessment 2017 in PFM cycle generate the risk if there is a lack of transparency and accountability in the use of public funds.	H	Implement the PFM reform agenda with the support of the World Bank and other donors (AfDB and EU). The World Bank-financed Public Sector Services Delivery and Accountability Project (P150116) is supporting the improvement of Madagascar's public sector and PFM system.	N	H
Entity level The PCU has no previous experience in FM of IDA projects.	H	Recruit one qualified FM officer and an internal auditor.	Y	S



Project level Misunderstanding of the responsibility as the project involves several stakeholders and due to the lack of experience in project implementation, especially projects financed by the World Bank	S	A PIM including FM procedures and a clear description of the roles and responsibilities of the various stakeholders will be developed with appropriate training.	Y	S
Control Risk				S
Budgeting Delay in preparing the annual budget and inappropriate monitoring of budget execution, resulting in a delay in achieving the project's objectives	S	Strictly follow budget procedures and timelines as per the PIM. Tools and systems will be set up to enable preparation and execution of the project.	N	S
Accounting Weak capacity and lack of experience in managing World Bank-financed projects which may result in delay and inaccuracies of accounting data	S	Recruit qualified FM staff. Install an adequate accounting information system that enables budget follow-up, accounting, and reporting.	N	M
Internal Controls and Internal Audit Ineffective audit function Risk of ineligible expenditures	S S	Recruit qualified FM staff for project implementation. Design a comprehensive PIM covering FM aspects. Monitor the risk of non-compliance of the expenditures by using risk-based approach for internal audit. Provide support and sensitize on the risk of ineligible expenditures during the World Bank supervision mission.	N Y N N	S S
Funds Flow Risk of delay in the disbursement of funds because the designated account is opened at the BCM.	S	Provide support to the GoM to identify and mitigate the risk of the transfer of funds to the BCM (dedicated unit for donor-funded projects at the BCM).	N	S
Financial Reporting and Monitoring Unreliable Interim Financial Reports and delay in submitting the Interim Financial Reports	S	Accounting software to be set up Qualified FM staff recruited	N	M
External Auditing	S	Audit ToR will be reviewed.	N	M



Audit not in compliance with internationally acceptable standards Delay in submitting the audit report		Qualified external auditor will be recruited. PFS will be available on time.		
Fraud & Corruption Risk of fraud and corruption in the contracts' management	S	Ensure that the GRM is part of the project.	N	S
Overall Risk	S			S

Procurement

23. A National Procurement Code was enacted in July 2004 and included simplification of procedures and compliance with international standards. The Procurement Code has also been supplemented by regulations, manuals of procedures, and standard bidding and other procurement documents. Nevertheless, during the preparation of the project, it was agreed with the Borrower that under IDA Procurement Regulation for IPF Borrowers, the World Bank’s Standard Bidding Documents (SBDs) will be used. The PIM will reflect the arrangements for the proposed project.

24. **Procurement procedures.** Procurement for the proposed operation will be carried out in accordance with the World Bank Procurement Regulations for IPF Borrowers—Procurement in IPF: Goods, Works, Non-Consulting, and Consulting Services, of July 1, 2016, revised November 2017 and August 2018 and the provisions stipulated in the Financing Agreement. The Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, of October 15, 2006, and revised in January 2011, and as of July 1, 2016 will apply.

25. **The Borrower has prepared the PPSD and the Procurement Plan to identify the optimum procurement strategy for meeting the project’s development objectives.** The PPSD was reviewed and found satisfactory by the World Bank in September 2019. It is available in the project files. The PPSD concludes that: (a) the national and international environment is favorable for the procurement of goods, works, and non-consulting and consulting services needed for project implementation; (b) the national market is not able to supply qualified contractors for the civil works, therefore international competitive bidding will be used for the civil works; and (c) the national market is able to supply the needed inputs for computer equipment, office equipment, furniture and office supplies, which will be purchased according to the relevant procedures.

26. Overall, the PPSD finds that the capacities of the national and international markets are sufficient to meet the project's needs. The suppliers, companies and consultants identified have assets in terms of experience and capacity to execute the planned contracts. These potential bidders will, of course, be put out to competition as much as possible when the procurement process is launched, unless there is a clearly established reason to use direct selection. For individual consultants, a notice of expression of interest will be published with wide publicity at national and international level or, where appropriate, at the invitation of the most qualified known consultants.

27. An initial 18-month Procurement Plan covering expected procurement activities under the project components was prepared before appraisal. After the project is approved by the Board, the Procurement Plan will be published on the MEF’s website and the World Bank’s external website. The Procurement Plan will be



updated in agreement with the World Bank at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. The prior review thresholds governing the Procurement Plan are those included in the guidance note for prior reviews and issued by the APM.

28. **National Procurement Procedures may be used while approaching the national market.** The requirements for national open competitive procurement include the following:

- (a) Open advertising of the procurement opportunity at the national level;
- (b) The procurement is open to eligible firms from any country;
- (c) The request for bids and request for proposal documents shall require that bidders and proposers submitting bids and proposals present a signed acceptance at the time of bidding, to be incorporated in any resulting contracts, confirming application of, and compliance with, the World Bank's Anti-Corruption Guidelines, including without limitation the World Bank's right to sanction and the World Bank's inspection and audit rights;
- (d) Contracts with an appropriate allocation of responsibilities, risks, and liabilities;
- (e) Publication of contract award information;
- (f) Rights for the World Bank to review procurement documentation and activities;
- (g) An effective complaints mechanism, including SEA cases; and
- (h) Maintenance of records of the procurement process.

29. Other national procurement arrangements (other than national open competitive procurement) that may be applied by the Borrower (such as limited or restricted competitive bidding, request for quotations and shopping, direct contracting), shall be consistent with the World Bank's Core Procurement Principles and ensure that the World Bank's Anti-Corruption Guidelines and Sanctions Framework and contractual remedies set out in its Legal Agreement apply. In all cases, the national procurement procedures to be used shall give due attention to quality aspects.

30. **Procurement arrangements.** The PCU within the MAHTP will be responsible for project procurement under the supervision of the MAHTP's Secretary General. Procurement teams, including the procurement officer and procurement assistant, are under recruitment. During project preparation, procurement activities funded by the PPA are managed by the FER for which a Procurement Capacity Assessment was conducted as part of project preparation. **The overall project risk for procurement is rated as High.**



ANNEX 3: GBV and SEA Prevention and Response Action Plan

COUNTRY: Madagascar

Connectivity for Rural Livelihood Improvement Project

No.	Phase	Action to Address GBV Risks	Timing for Action	Who Is Responsible for Action	Status at Appraisal	Actions Taken during Preparation/Appraisal and Ongoing Risk Management during Implementation Stage
1	Preparation	Sensitize the technical services of MAHTP, and RA	February 2019	World Bank Task Team	Completed	<ul style="list-style-type: none"> The World Bank Task Team had discussions with the MAHTP, RA, on the importance of addressing GBV in the project. Meetings were held with local the UNFPA and NGOs to gather available data on GBV. The World Bank Task Team is to monitor and provide additional guidance as necessary.
2	Preparation	Assessing GBV risks	February 2019	MAHTP and RA during the preparation of the ESIA/ESMP	Completed	<ul style="list-style-type: none"> GBV risks of the project were assessed using GBV assessment tool and existing information and datasets from the UNFPA. Ongoing review during implementation support missions. Update project ESMP and C-ESMP if risk situation changes.
3	Preparation	Mapping out GBV prevention and response actors in the project's area of influence	February 2019	MAHTP and RA	Completed	<ul style="list-style-type: none"> The World Bank Task Team has identified key stakeholders already working in Madagascar on the prevention and service provision of survivor of GBV. Update mapping as appropriate.
4	Preparation	Reflect GBV risks in all safeguard documents (ESIA, ESMP).	Preparation (July 2019) and Implementation (before works begin November 2019-March 2025)	MAHTP for ESIA and ESMP, Contractor for C-ESMP	Completed for preparation stage	<ul style="list-style-type: none"> The GBV risks adequately reflected in the ESIA and mitigation measures to be included in the C-ESMPs are identified. Ongoing review during implementation support missions. Update project ESMP and C-ESMP if risk situation changes.
5	Preparation	Develop a GBV action plan (including an Accountability and Response Framework) in the ESMP. The ESMP shall reflect how the	Preparation (July 2019) and Implementation (before works begin November 2019)	MAHTP	Completed for preparation stage	<ul style="list-style-type: none"> Ongoing review during implementation support missions. The Task Team will support the PCU in reviewing the GBV action plan and the C-ESMPs to make sure they include a detailed plan for the implementation of GBV contractual clauses.



No.	Phase	Action to Address GBV Risks	Timing for Action	Who Is Responsible for Action	Status at Appraisal	Actions Taken during Preparation/Appraisal and Ongoing Risk Management during Implementation Stage
		contractors will implement this plan.				
6	Preparation	Review the PCU capacity to prevent and respond to GBV as part of safeguards preparation	February 2019	World Bank Task Team	Completed	<ul style="list-style-type: none"> • PCU capacity to prevent and respond to GBV was reviewed during project preparation. Staff will be reinforced with the recruitment of a social safeguard expert, and a GBV specialist as part of the key personnel and by mobilizing a specialized NGO. • Ongoing review during implementation support missions. • Update project ESMP if risk situation changes.
7	Preparation	As part of the project’s stakeholder consultations, those affected by the project should be properly informed about GBV risks and project activities to get their feedback on the project design and safeguard issues.	Preparation (February to July 2019) and implementation (November 2019 to March 2025)	MAHTP/PCU	Completed for preparation stage	<ul style="list-style-type: none"> • Consultations with a variety of stakeholders were held during the preparation of the safeguards instruments. • Consultations are expected to occur continuously during implementation by the specialized NGO to partner with the community in preventing GBV. • Monitoring of implementation of Stakeholder Engagement Plan. • Ongoing consultations, particularly when the C-ESMP is updated.
8	Preparation/Implementation	Stakeholder mobilization/information plan should address GBV issues	Preparation and implementation	MAHTP/PCU	3 months after effectiveness	<ul style="list-style-type: none"> • The project will develop a communication plan that will include GBV issues. The communication will target among others religious leaders, traditional leaders, youth, and women. These activities will be an integral part of the mandate of the NGO to be recruited. • The World Bank Task Team will support the PCU in reviewing the communication plan to make sure it includes GBV issues. • Monitoring of implementation of communication plan. • Ongoing consultations, particularly when the C-ESMP is updated.
9	Preparation/Implementation	Establish an effective complaints management system	Before the mobilization of the contractor	MAHTP, with the World Bank Task Team support	Planned	<ul style="list-style-type: none"> • A parallel GBV GRM outside of the project GRM is warranted given the high-risk situation. • Ongoing monitoring and reporting on GRM to verify it is working as intended.



No.	Phase	Action to Address GBV Risks	Timing for Action	Who Is Responsible for Action	Status at Appraisal	Actions Taken during Preparation/Appraisal and Ongoing Risk Management during Implementation Stage
10	Preparation	Ensure IA has a GBV specialist to support project implementation.	By effectiveness	MAHTP/PCU	February 2020	<ul style="list-style-type: none"> A social safeguards expert, and a GBV specialist are being recruited as part of the key personnel. A specialized NGO will be recruited to complement the expertise. Ongoing reporting.
11	Preparation/ Implementation	For supervision, have a social/ environmental specialist with the supervision consultant's team with GBV-specific skills to supervise GBV-related issues (for example. supervise the signing of CoCs, verify working GRM for GBV in place, refer cases where needed) and work with the NGO as entry point into service provision to raise awareness of the GRM.	During the evaluation of the bids for the supervision consultant	MAHTP/PCU	Planned	<ul style="list-style-type: none"> ToR of the supervision consultant includes a social/environmental specialist as part of the key personnel. Ongoing reporting.
12	Preparation	Funding must be available to recruit GBV service providers to facilitate access to timely, safe, and confidential services for survivors (money for transportation, documentation fees, and lodging with needed).	Pre-appraisal mission	MAHTP	Completed	<ul style="list-style-type: none"> Funding of GBV service providers is planned under Component 4.
13	Implementation	Oversight through an independent third-party monitor organization/independent agent verification	Before commencement of civil works	MAHTP	Planned	<ul style="list-style-type: none"> An NGO specialized in GBV is expected to be recruited. Ongoing reporting.
14	Procurement	Clearly define the GBV requirements and	Bidding stage of contracts	MAHTP/PCU	Completed for first 40	<ul style="list-style-type: none"> The project uses the latest versions of the World Bank's standard bidding documents that define companies'



No.	Phase	Action to Address GBV Risks	Timing for Action	Who Is Responsible for Action	Status at Appraisal	Actions Taken during Preparation/Appraisal and Ongoing Risk Management during Implementation Stage
		expectations in the bid documents.			km of RNS44. Planned for all remaining civil works.	<ul style="list-style-type: none"> expectations and obligations regarding GBV. Additional GBV prevention measures will be included. This has been applied for the initial 40 km of RNS44 under retroactive financing. Review by the World Bank Task Team.
15	Procurement	Based on the project's needs, the World Bank's Standard Procurement Documents, and the IA's policies and goals, define the requirements to be included in the bidding documents for a CoC, which addresses GBV.	Bidding stage of contracts	MAHTP/PCU	Completed for first 40 km of RNS44. Planned for all remaining civil works.	<ul style="list-style-type: none"> The project will use the latest versions of the World Bank's standard bidding documents that define companies' expectations and obligations regarding GBV. This has been applied for the initial 40 km of RNS44 under retroactive financing. Review by the World Bank Task Team.
16	Procurement	For national competitive bidding procurement, consider integrating the ICB Standard Procurement Documents requirements for addressing GBV risks.	Award of contracts	MAHTP/PCU	Planned	<ul style="list-style-type: none"> The project will use the latest versions of the World Bank's standard bidding documents that define companies' expectations and obligations regarding GBV. Review by the World Bank Task Team.
17	Procurement	Clearly explain and define the requirement of the bidders CoC to bidders before submission of the bids.	Award of contracts	MAHTP/PCU with the support of the World Bank Task Team	Underway	<ul style="list-style-type: none"> Three crucial elements are needed in the CoC: (a) clear language on the values of the organization in relation to professional conduct on the site, (b) prohibition of sex with a minor, (c) dismissal and prosecution if a worker violates the CoC. A model of a good conduct CoC is attached to the ESMF and may be part of the bidding documents. This has been applied for the initial 40 km of RNS44 under retroactive financing. Review by the World Bank Task Team.
18	Procurement	The bidding documents should clearly set out how adequate GBV costs will be paid for in the contract.	Procurement	MAHTP/PCU with the support of the World	Underway	<ul style="list-style-type: none"> There will be line items in the bill of quantities for GBV activities (that is, training of workers on CoC). Lump sum for activities that cannot be quantified. This has been applied for the initial 40 km of RNS44 under retroactive financing.



No.	Phase	Action to Address GBV Risks	Timing for Action	Who Is Responsible for Action	Status at Appraisal	Actions Taken during Preparation/Appraisal and Ongoing Risk Management during Implementation Stage
				Bank Task Team		<ul style="list-style-type: none"> Review by the World Bank Task Team.
19	Award of Contracts	Clearly explain to recruited contractors the requirements of the CoC.	Procurement	MAHTP/PCU with the support of the World Bank Task Team	Completed for the first 40 km of RNS44 and Planned for remaining civil works.	<ul style="list-style-type: none"> An information meeting on GBV will be organized with the companies recruited after the notification and before the service order. This has been applied for the initial 40 km of RNS44 under retroactive financing. Review by the World Bank Task Team.
20	Award of contracts	Evaluate the contractor's GBV response proposal in the C-ESMP and confirm before finalizing the contract the contractor's ability to meet the project's GBV requirements.	Award of contracts	MAHTP/PCU with the support of the World Bank Task Team	Underway for the first 40 km of RNS44 and Planned for remaining civil works.	<ul style="list-style-type: none"> The contractor's ability to meet the project's GBV requirement will be the selection requirement before signing the contract. This has been applied for the initial 40 km of RNS44 under retroactive financing. Review by the World Bank Task Team.
21	Implementation	Review the C-ESMP to verify that appropriate mitigation actions are included.	Implementation	MAHTP/PCU with the support of the World Bank Task Team	Planned	<ul style="list-style-type: none"> The Task Team will review the C-ESMP before its commencement of civil works. Review by the PCU.
22	Implementation	Review that the GRM receives and processes complaints to ensure that the protocols are being followed on time, referring complaints to an established mechanism to review and address GBV complaints.	Implementation	MAHTP/PCU with the support of the World Bank Task Team	Planned	<ul style="list-style-type: none"> The NGO is expected to be operationalized and continuously verify that GBV GRM is working. Ongoing reporting. Monitoring of complaints and their resolution.
23	Implementation	CoCs signed and understood <ul style="list-style-type: none"> Ensure the requirements in CoCs 	Initiated before contractor mobilization and continued	MAHTP/PCU with the support of the World	Planned	<ul style="list-style-type: none"> Review of GBV risks during project supervision (for example., midterm review) to assess any changes in risk.



No.	Phase	Action to Address GBV Risks	Timing for Action	Who Is Responsible for Action	Status at Appraisal	Actions Taken during Preparation/Appraisal and Ongoing Risk Management during Implementation Stage
		<p>are clearly understood by those signing.</p> <ul style="list-style-type: none"> • Have CoCs signed by all those with a physical presence at the project site. • Train project-related staff on the behavior obligations under CoCs. • Disseminate CoCs (including visuals) with employees and surrounding communities. 	during implementation	Bank Task Team		<ul style="list-style-type: none"> • Supervision consultant reporting that CoCs are signed and that workers have been trained and understand their obligations⁴⁰ • Monitoring of GRM for GBV complaints. • Discussion at public consultations.
24	Implementation	Have project workers and local community undergo training on SEA and sexual harassment.	Implementation	MAHTP/PCU Contractor, Consultant	Planned	<ul style="list-style-type: none"> • Ongoing reporting
25	Implementation	Undertake regular monitoring and evaluation of progress on GBV activities, including reassessment of risks as appropriate.	Implementation	MAHTP/PCU Contractor, Consultant NGO	Planned	<ul style="list-style-type: none"> • Ongoing reporting • Monitoring of GRM
26	Implementation	<p>Implement appropriate project-level activities to reduce GBV risks before commencing civil works:</p> <ul style="list-style-type: none"> • Have separate, safe, and easily accessible facilities for women 	Before commencing works	MAHTP/PCU Contractor, Consultant NGO, World Bank Task Team	Planned	<ul style="list-style-type: none"> • The Task Team will ensure that these measures are included in the C-ESMP. • Ongoing reporting. • Reviews during implementation support missions.

⁴⁰ Civil works supervision consultant’s monthly reports should confirm all persons with physical presence at the project site have signed a CoC and have been trained.



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		<p>and men working on the site.</p> <ul style="list-style-type: none">• Visibly display signs around project site that signal to workers and community that the project site is an area where GBV is prohibited.• As appropriate, public spaces around the project grounds should be well lit.				