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Report No: PAD4556

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED CREDIT

IN THE AMOUNT OF SDR139.3 MILLION
(US\$200 MILLION EQUIVALENT)

TO THE
REPUBLIC OF MADAGASCAR

FOR THE
MADAGASCAR ROAD SECTOR SUSTAINABILITY PROJECT

June 7, 2021

Transport Global Practice
Eastern and Southern Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2021)

Currency Unit = Malagasy Ariary (MGA)

MGA 3,807.49 = US\$1

US\$1 = SDR 0.70

FISCAL YEAR

January 1 - December 31

Regional Vice President: Hafez M. H. Ghanem

Country Director: Idah Z. Pswarayi-Riddihough

Regional Director: Riccardo Puliti

Practice Manager: Maria Marcela Silva

Task Team Leader(s): Ziad Salim EL Nakat

ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
ARM	Madagascar Road Agency (<i>Autorité Routière de Madagascar</i>)
ARSO	Africa Road Safety Observatory
AWP	Annual Work Plan
BFM	Central Bank of Madagascar (<i>Banky Foiben'i Madagasikara</i>)
CE	Citizen Engagement
CERC	Contingent Emergency Response Component
CoC	Code of Conduct
CPF	Country Partnership Framework
CSB	Basic Health Center (<i>Centre de Santé de Base</i>)
COVID-19	Corona-Virus Disease 2019
DA	Designated Account
DGPW	Director General of Public Works
DFIL	Disbursement and Financial Report Information Letter
EIRR	Economic Internal Rate of Return
ERP	Enterprise Resource Planning
ESA	Environmental Safeguards Agreement
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESRC	Environmental and Social Risk Classification
ESRS	Environmental and Social Review Summary
ESS	Environmental and Social Standard
EU	European Union
FM	Financial Management
GBV	Gender-based Violence
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GoM	Government of Madagascar
GPN	Good Practice Note
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
HDM	Highway Development Model
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
IA	Implementation Agency
IAS/IFRS	International Accounting Standards/ International Financial Reporting Standards
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
IDA	International Development Association
IFC	International Finance Corporation
IFR	Interim Financial Report
IPF	Investment Project Financing
IVA	Independent Verification Agent
JICA	Japan International Cooperation Agency

KM	Kilometers
LMP	Labour Management Procedures
M&E	Monitoring and Evaluation
MEF	Ministry of Economy and Finance (<i>Ministère de l'Économie et des Finances</i>)
MFI	Microfinance Institution
MOTMoT	Ministry of Transport
MPA	Multiphase Programmatic Approach
MSME	Medium, small and micro enterprise
MTPPW	Ministry of Territorial Planning and Public Works
NCB	National Competitive Bidding
NGO	Non-governmental/Nongovernmental Organization
NPV	Net Present Value
NRSC	National Road Safety Committee
OP	Operational Policy
PACT	Connectivity for Rural Livelihood Improvement Project (<i>Projet d'Appui à la Connectivité des Transports</i>)
PBC	Performance-based Contract
PDO	Project Development Objective
PEM	Plan Emergence Madagascar
PFM	Public Financial Management
PIU	Project Implementation Unit
POM	Project Operations Manual
PPA	Project Preparation Advance
PPP	Public Private Partnership
PPSD	Project Procurement Strategy for Development
PSI	Present Safety Impact
PTC	Project Technical Committee
PTI	Project Targeting Index
QCBS	Quality and Cost Based Selection
RA	Road Agency
RAI	Rural Access Index
RC	Communal Road (<i>Route Communale</i>)
RF	Road Fund
RMCHN	Reproductive, Maternal, Child Health and Nutrition
RN	National Road (<i>Route Nationale</i>)
RP	Provincial Road (<i>Route Provinciale</i>)
RPF	Resettlement Policy Framework
RSA	Road Safety Agency
RSSAT	Road Safety Screening and Appraisal Tool
SA	Subsidiary Agreement
SC	Steering Committee
SEA/SH	Sexual Exploitation and Abuse and Sexual Harassment
SEP	Stakeholder Engagement Plan
SOE	Statement of Expenditures
SPD	Standard Procurement Document
STD	Sexually Transmitted Disease
STEP	Systematic Tracking of Exchanges in Procurement
TA	Technical Assistance

TC	Technical Committee
TOR	Terms of Reference
TPM	Third Party Monitor
WASH	Water Sanitation and Hygiene
WHO	World Health Organization



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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Madagascar	Madagascar Road Sector Sustainability Project	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P176811	Investment Project Financing	Substantial

Financing & Implementation Modalities

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

Expected Approval Date	Expected Closing Date
29-Jun-2021	30-Sep-2026

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To improve the longevity, safety and climate resiliency of selected paved primary roads in Madagascar.

Components

Component Name	Cost (US\$, millions)
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Improving Road Condition and Resilience	180.00
Technical Assistance and Support to Roads and Transport Sector Reforms	20.00
Contingency Emergency Response Component	0.00

Organizations

Borrower: Republic of Madagascar

Implementing Agency: Road Agency

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	200.00
Total Financing	200.00
of which IBRD/IDA	200.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	200.00
IDA Credit	200.00

IDA Resources (in US\$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Madagascar	200.00	0.00	0.00	200.00
National PBA	200.00	0.00	0.00	200.00
Total	200.00	0.00	0.00	200.00

Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2021	2022	2023	2024	2025	2026	2027
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Annual	0.00	5.00	15.00	40.00	60.00	70.00	10.00
Cumulative	0.00	5.00	20.00	60.00	120.00	190.00	200.00

INSTITUTIONAL DATA

Practice Area (Lead)

Contributing Practice Areas

Transport

Climate Change and Disaster Screening

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

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

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

COMPLIANCE

Policy

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

[] Yes [✓] No



Does the project require any waivers of Bank policies?

[] Yes [✓] No

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

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

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

Legal Covenants

Sections and Description

Schedule 2, Section 1. A. 2 . (d). The Recipient shall cause the Road Agency as project implementing entity, no later than three (3) months after the Effective Date, to recruit and thereafter maintain throughout Project implementation, key staff for the RA-PIU, with qualifications and under terms of reference acceptable to the Association, including: (i) a Project coordinator; (ii) a procurement specialist; (iii) an environmental specialist; (iv) a social safeguards specialist; (v) a gender-based violence and SEA/SH specialist; (vi) a financial management officer.

Sections and Description

Schedule 2, Section 1. E. 5..Not later that two (2) months after the Effective Date, the Recipient shall, and shall



cause the Road Agency as the Project Implementing Entity to, establish, publicize, maintain and operate an accessible grievance mechanism.

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	The Subsidiary Agreement has been executed and delivered and all conditions precedent to its effectiveness or to the right of the Recipient to make withdrawals under it (other than the effectiveness of this Agreement) have been fulfilled
Disbursement	IBRD/IDA	Description For Emergency Expenditures under CERC, (i) (A) the Recipient has determined that an Eligible Crisis or Emergency has occurred, and has furnished to the Association a request to withdraw Financing amounts; and (B) the Association has agreed with such determination, accepted said request and notified the Recipient thereof; and (ii) the Recipient has adopted the CERC Manual and Emergency Action Plan, in form and substance acceptable to the Association.



I. STRATEGIC CONTEXT

A. Country Context

1. **Prior to the Corona-Virus Disease 2019 (COVID-19) pandemic, Madagascar’s economic performance had been generally robust, owing to overall political stability and careful macroeconomic management.** Madagascar is the fourth largest island in the world, with a total population of more than 26 million. The country has considerable and varied economic potential in tourism, agribusiness, fisheries, light manufacturing and mining. After the political and economic crisis of 2009,¹ the Malagasy economy has been recovering steadily, with an average growth rate of more than four percent over the past five years, led by strong investment in transport infrastructure, textiles and apparel, agribusiness and mining (Figure 1). In 2019, Madagascar attracted about 375,000 international tourists, earning nearly US\$900 million in foreign currency, which accounts for about 20 percent of the country’s total exports.²

2. **To date, the adverse economic impact of the COVID-19 crisis has been substantial.** Global trade and travel disruptions as well as domestic containment measures resulted in a recession in 2020 comparable to that associated with the constitutional crisis in 2009, with gross domestic product (GDP) contracting by an estimated 4.2 percent in 2020. Economic conditions are expected to gradually stabilize in 2022 and accelerate in 2023, with export sectors recovering, against the backdrop of a modest pickup in global demand. Increased domestic activity driven by public investment, notably in infrastructure, is expected to entail a modest pickup in private consumption and investment. Under baseline assumptions, growth would recover in late 2021, but only to a still subdued rate of two percent, before bouncing back to 5.8 percent due to the combined rebound in tourism activity, industry and services, and an ambitious public infrastructure program. Over the medium term, growth is expected to level off at roughly five percent due to continuing underlying constraints. Overall, the crisis in 2020 and 2021 would have reduced average per capita income by about 13 percent, relative to pre-crisis expectations, leaving a lasting scar on the country’s development trajectory. The crisis also had important impacts on local unemployment, with the catering and accommodation sector as well as the transport sector most affected.

Figure 1. Pre-COVID Sector Contribution to Growth Since 2016³

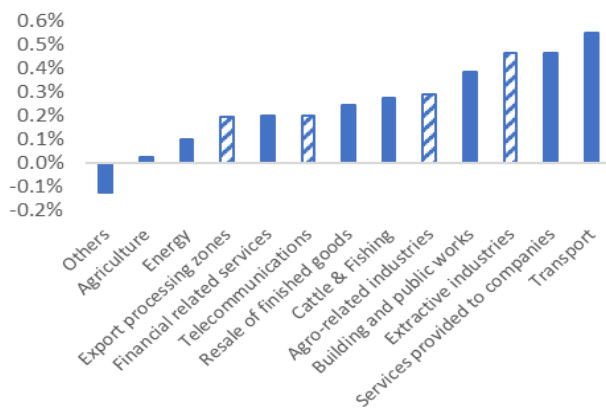
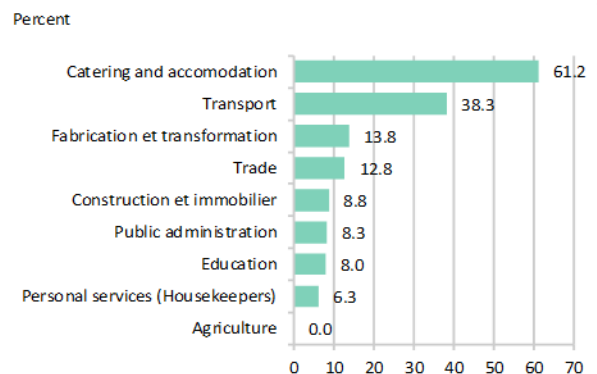


Figure 2. Share of employment affected by COVID-19 – Transport among most affected.⁴



3. Poverty remains persistently high, especially in rural areas of Madagascar, and is expected to increase due to

¹ A period of so-called ‘transition’ started in early 2009 following the non-constitutional handover of power and lasted until the 2013 presidential elections.

² According to *World Development Indicators*.

³ Concept note of Madagascar Systematic Country Diagnostic (SCD) Update

⁴ Concept note of Madagascar Systematic Country Diagnostic (SCD) Update.



COVID-19. The country’s GDP per capita is US\$527, among the lowest in the world, with about 76 percent of the total population still living below the poverty line in 2019 (US\$1.90 per day). Poverty is now estimated to have further increased to 79.7 percent due to COVID-19, likely undoing the gains achieved since the return to constitutional order in 2013. With two-thirds of the population living in rural areas, Madagascar remains primarily a rural country, despite recent economic and demographic growth in urban centers, particularly Antananarivo with a population of about three million, where half of the firms are concentrated. Rural and remote areas are lagging behind; the rural population is primarily engaged in subsistence agriculture and remains disconnected from the country’s economic growth. There is a strong correlation in Madagascar between the incidence of poverty and road connectivity as measured by the Rural Access Index (RAI) (Figure 3).

Figure 3. International Comparison of Poverty and Rural Access

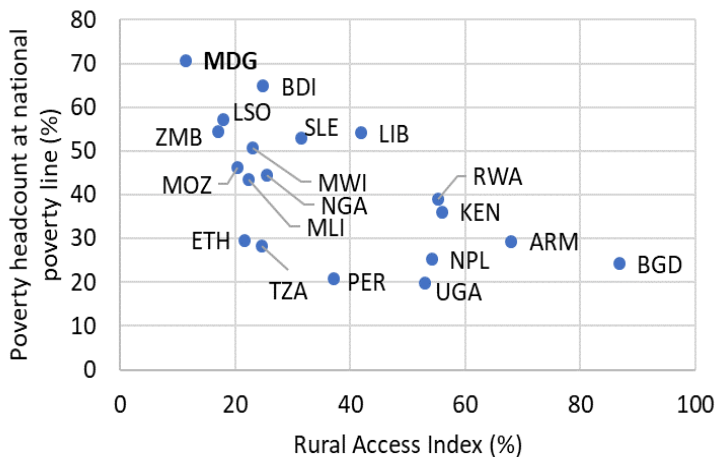
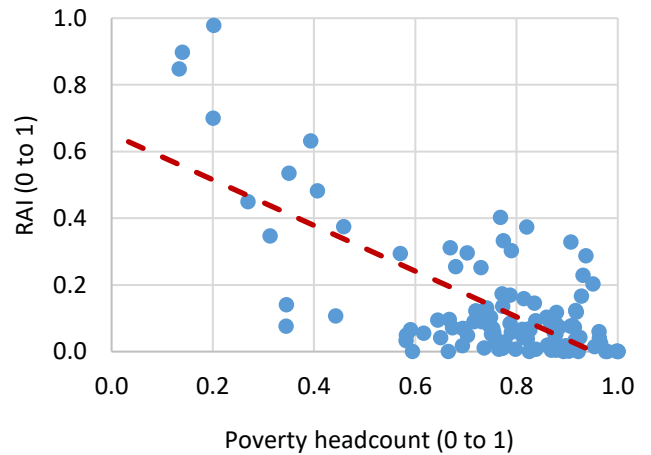


Figure 4. Correlation of Rural Access and Poverty in Madagascar.

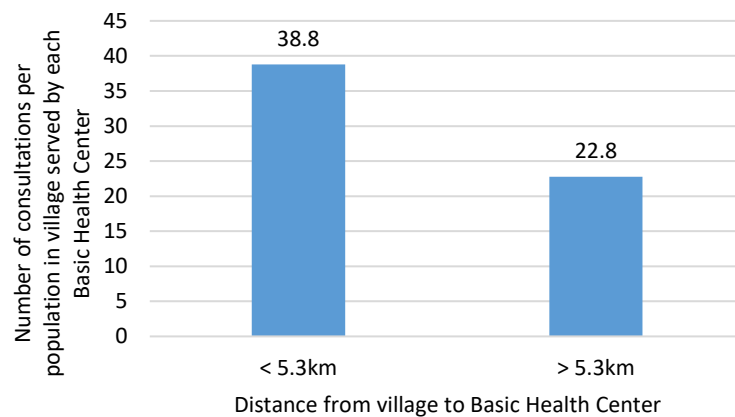


4. **Transport connectivity is a critical enabler for the key economic activities in Madagascar’s economy.** The agriculture sector still plays a key role in the Malagasy economy, yet Madagascar’s productive sectors have little access to local and international markets due to poor transport connectivity. The agriculture sector currently employs 75 percent of the country’s total labor force, generating 25 percent of GDP and earning 30 percent of foreign currency. However, agricultural productivity remains low, and most rural farmers are engaged in subsistence production with limited access to markets, as only 11 percent of the population has access to a good road network in rural Madagascar. Firms, particularly agribusiness, do not operate in rural areas due to poor connectivity and in terms of transport time, some high value export crops, such as lychee and coffee, require at least three days travel to reach the main port in Toamasina. Poor connectivity, including on primary roads such as the National Route 2 (*route rationale 2, RN2*) linking the main port of Tomasina to the capital Antananarivo, hinders firms’ productivity and raises costs. Most of the vital transport routes are poorly maintained. Meanwhile, tourism sites in the north and west of the country, such as Nosy Be and Morondava, are difficult to access by road from Antananarivo, the primary entry point for international tourists.



5. **Poor transport connectivity hampers access to education and health care services.** There are more than 26,000 public schools in Madagascar, of which about 60 percent are not on the road network. While school enrollment in Madagascar is higher than regional comparators, unfortunately so is the repetition rate of students: this is highly correlated to the distance from schools to a road. Meanwhile, the coverage of basic health centers in Madagascar remains limited, and about 900 of the 3,200 basic health centers (*Centre de Santé de Base*, CSB) are disconnected from the road network. Half of rural households are more than ten kilometers (km) away from a basic healthcare service center, and one in four of Madagascar’s households are disconnected from roads, requiring residents to walk for more than an hour to reach the nearest of these centers. The timely distribution of medical supplies and equipment is often challenging in rural Madagascar, especially during the rainy season.

Figure 5. Number of Patients per 100 Persons in Villages Served by a Basic Health Center⁵



6. **Beyond its role as enabler for critical economic activities and services, the transport sector is pivotal to Malagasy job creation.** The transport sector has been one of the largest contributors to Madagascar’s economy and its economic growth. Figure 1 shows that transport has been the largest contributor to GDP growth in the past few years, employing at least 10 percent of the labor force, especially the poor and low-skilled. Unfortunately, the sector has also been one of the most affected by COVID-19 and the associated economic slowdown. Investments in transport and public works are part of the Government’s program to stimulate the economy and create local jobs in the short to mid-term while the export-oriented sectors recover to their full potential as the global economy recovers.

7. **Madagascar is highly vulnerable to shocks, and extreme weather events are becoming increasingly frequent and intense, requiring investment in more resilient infrastructure.** The country is one of the Vulnerable Twenty Group countries and has experienced significant climate events almost annually, such as tropical cyclones, floods, storm surges and landslides. As detailed in the disaster and climate risks screening, these risks will only worsen with climate change. Higher temperatures, increased coastal erosion due to sea level rise, and an overall decrease in rainfall (although associated with more frequent high-intensity rainfall events) will increase the risks, particularly for rural communities and for the country’s economy, especially in the agricultural and tourism sectors.⁶ Under-designed or inadequately maintained transport infrastructure is particularly vulnerable and easily washed away, resulting in huge disruption to the economy and high reconstruction costs. Transport infrastructure plays a crucial role not only in strengthening the resilience of the economy to climate shocks, but also in accelerating the evacuation of affected areas: easing post-disaster

⁵ Madagascar: Spatial Analysis of Transport Connectivity and Growth Potential. June 2018.

⁶ World Bank Climate Change Knowledge Portal and AfDB Madagascar Climate Change Profile (<https://www.afdb.org/en/documents/madagascar-national-climate-change-profile>)



recovery by ensuring a lifeline through the timely movement of emergency supplies. Transport services, such as domestic and international airlines, as well as public transport, are critical to maintaining national and international connectivity for a large island country such as Madagascar. All have been heavily affected by the COVID-19 lockdown, highlighting the need to mobilize additional resources to build more climate-resilient infrastructure and to assist transport operators to withstand the financial impacts of the COVID-19 pandemic.

8. **Gender gaps in employment and human endowments, especially in the construction sectors, are significant, and poor connectivity further hinders women's employment.** Out of 153 countries, Madagascar ranks number 65 in the Gender Gap Index 2020. While women's participation in the labor market in Madagascar is similar to that of men, occupational segregation in the road sector is prevalent. This is due to gender norms and the gender skills gap that tends to keep women out of more lucrative jobs. In 2019, labor market rates were 83 percent for women and 89 percent for men. Women are concentrated in agriculture (59.9 percent) and services (31.1 percent). While women's engagement in formal and informal sectors is high compared to peer countries, construction remains male-dominated and is only reached by 5.5 percent of all employed women. The difficulty in attracting, recruiting, retaining, and promoting women within the sector reinforces the lack of gender diversity.

9. **The transport sector is, therefore, a key driver for the overall development of Madagascar's economy and services, by ensuring local and international connectivity to markets.** Yet it is also costly to develop and maintain due to Madagascar's geography (a very large island), difficult topography (with central mountains and dense coastal forests), frequent climate and other shocks, and the low average population density with low concentrations of volumes (both goods and passengers) outside the capital. This means high transport unit costs, leaving the transport sector comparatively unattractive for private investment — except for a few key transport links. It is therefore necessary to mobilize resources on a large scale, in effect to jump-start the economy. The aim will be to break the isolation of the scattered pockets of settlement, and the markets that serve them, and thereby trigger more economic activity and investment, followed by increased financial and fiscal revenues. The mobilization of such large resources should be coupled with robust measures to ensure the financial and socioeconomic sustainability of the associated investment.

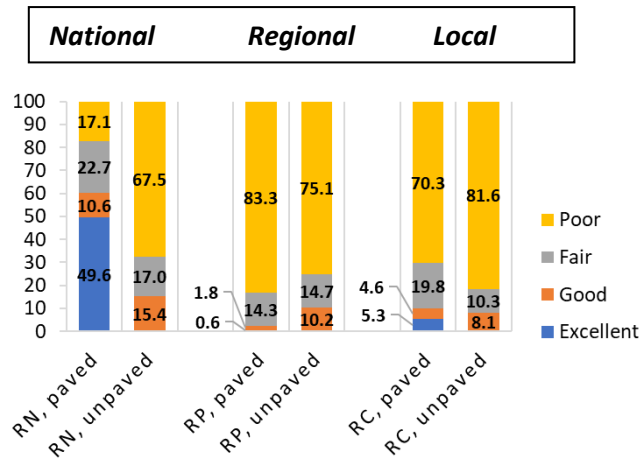
B. Sectoral and Institutional Context

10. **The road sector is the backbone of the transport network in Madagascar, yet it remains one of the most underdeveloped in the world.** The road sector moves roughly 90 percent of total goods and passenger volumes, yet road density is 5.4 km per 100 km² of land, among the lowest in Sub-Saharan Africa (and the world). Of the 32,000 km of roads in Madagascar, there are 11,000 km of national roads (that is, *routes nationales*, the rest being regional and local roads) and only 6,000 km are paved. Most of the paved network comprises national roads. About 40 percent of paved national roads are in fair to poor condition, requiring periodic maintenance, while most of the unpaved national roads require heavy rehabilitation. Meanwhile, over 70 percent of regional and local roads are in poor condition (Figure 6). The Rural Accessibility Index, measured by the share of the rural population who live within 2 km of an all-season road is a mere 11.4 percent (among the lowest globally), which means that 17 million rural residents are left unconnected.⁷

⁷ Madagascar: Spatial Analysis of Transport Connectivity and Growth Potential. June 2018.



Figure 6. Road Condition by Road Class and Pavement type, 2017



11. **Madagascar has among the highest road fatality rates globally.** Madagascar’s road safety performance is poor and ranks 152nd among 175 countries assessed for road safety. The WHO estimated that in 2016, for example, there had been 7,108 road crash fatalities in Madagascar (or 28.6 per 100,000 people: higher than the average of 26.8 for all of Africa)⁸ and 106,620 serious injuries, costing the economy about US\$949 million. On average, road traffic crashes are estimated to cost between one and five percent of GDP in developing countries. As the economy of Madagascar grows, and its traffic accordingly, road crashes could be expected to increase in the absence of effective measures to prevent and mitigate them. Any efforts to address road safety challenges have been sporadic, and piecemeal, without any firm plans or coordination between the various agencies involved.

12. **The Ministry of Territorial Planning and Public Works (MTPPW) holds overall responsibility for the road sector, supported by the Road Agency and the Road fund.** In 2019, two presidential ordinances were issued to abrogate the Madagascar Road Agency (ARM) and the Road Maintenance Fund and replace them with the Road Agency (RA) and the Road Fund (RF), respectively. The reforms focused on vertical integration of responsibilities by asserting the responsibility of the RA for managing all aspects of the national road network, including construction and maintenance. In principle, this precludes the former problem of duplication of responsibilities, or the need to attempt to coordinate two different agencies attempting simultaneously to tackle construction and rehabilitation of the same stretch of road. The RF, which was initially only responsible for financing maintenance works, is now authorized to finance all types of road works both on the national as well as the local road network—though maintenance is still its chief current role. The RA therefore becomes the main works implementing agency on the national network, while the RF is responsible for mobilizing and securing the necessary financial resources. Under the new organizational setup, the RA is responsible for managing the national road network and implementing road development and maintenance works. The new RF is responsible for collecting and managing road sector resources and implementing national road policy, including both road investment and maintenance. The MTPPW maintains overall responsibility for the sector, setting its policies and strategies, and identifying sector priorities. It also maintains an important role, through its regional offices, in helping the regional and local authorities manage their own respective networks, because they lack the required technical capacity. The MTPPW also maintains an important oversight role over the RF and RA, and is prominently represented on the Board of Directors of the RA and the RF, whereby the Director General of Roads at the Ministry is the Chairman of the Board, which also includes additional representatives from MTPPW.

13. **Specialized road sector agencies, particularly the Road Agency and Road Fund, are yet to properly fulfill their**

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



expected roles and functions. In practice, the RA and RF are still in transition, following the 2019 presidential decrees; they are not yet fully operational, nor fulfilling their mandated functions. The RA currently manages only about 50 percent of the national road network, and there are still significant overlaps with MTPPW in the management of national roads. The RA is still not fully staffed, and is yet to fully shift its focus to becoming the main implementing agency in the sector while reducing its extraneous functions (such as operating weighing stations for trucks) which could be transferred to the private sector. Competition between the MTPPW and the RA still exists, especially in relation to the execution of works and the transfer of the national roads to the RA. The RF also lacks the capacity or vision to develop and diversify the resources it needs. This could involve increasing and collecting the dedicated revenues from the fuel tax, diversifying resources to include other sources of dedicated taxes and financing, attracting private sector investment, or introducing more innovative financing schemes to better leverage and utilize scarce existing resources. Various ministries and agencies are involved in the management of road safety in Madagascar, and although there is no lead agency nor a coordinated strategy, some progress is nevertheless being made, as discussed below.

14. **The Ministry of Public Works is committed to continue advancing the road sector reforms started in 2019.** The RA's capacity and new focus as the main implementing agency for road works on national roads is being steadily reinforced. A transition plan to gradually transfer the management in line with the gradual increase in RA capacity and resources is being developed, so that the RA takes over all of its intended roles. The aim here is to decouple the respective responsibilities of the Ministry and the RA in a clear, coordinated manner. A number of actions have also been undertaken to better collect and secure the dedicated fuel levy from oil companies, and over 90 percent of this tax is now being collected annually on a timely basis. There are nevertheless delays in the timely transfer of these resources from the Central Bank (Central Bank of Madagascar, BFM), where the funds are deposited, to the RF: the Ministry is working to resolve these administrative challenges. A strategy for increasing and diversifying the resources of the RF is also being prepared with support from the World Bank. One of the challenges in advancing reforms in Madagascar are vested interests that block or stall passage of the reforms needed. However, when reforms are agreed, their actual implementation tends to progress, albeit slowly, as the relevant institutions begin to discharge their duties. The World Bank is supporting the implementation of such reforms, especially those that have a broader consensus and have already benefited from substantial discussions in the course of the World Bank's engagement in the sector.

15. **Meanwhile, important reforms are also ongoing to improve the institutional structure and coordination of road safety activities, championed by the Ministry of Transport and supported by the Connectivity for Rural Livelihood Improvement Project (P166526; PACT).** This includes the development of a national road safety strategy and action plan, involving the creation of a lead road safety agency attached to the Prime Minister's Office to be entrusted with the technical and daily follow-up of road safety activities and the implementation of the action plan. An interministerial committee, chaired by the Minister of Transport, will also be created and will meet periodically for high-level decisions and follow-up to facilitate the implementation of the strategy and action plan. The proposed project will continue these important reforms and will provide substantial support for the implementation of technical assistance and data collection activities accordingly.

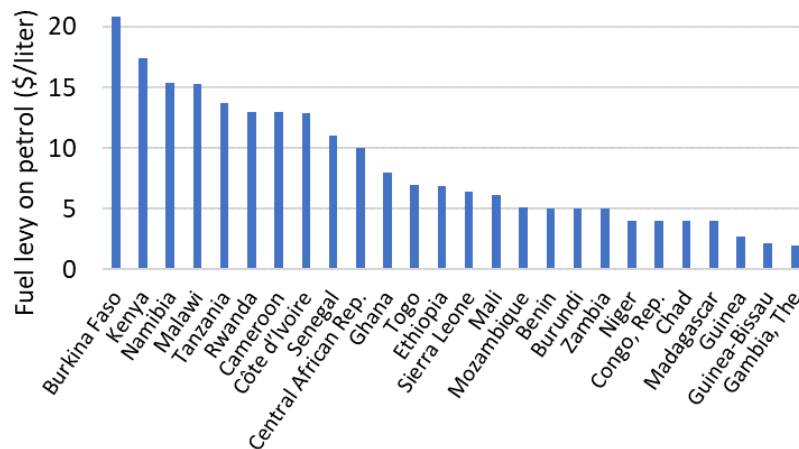
16. **Historically, there has been very little public expenditure on road investment and maintenance to connect Madagascar for sustainable and inclusive growth.** It is estimated that about US\$1.7 billion is needed to rehabilitate the existing road network to achieve universal access, as envisaged by Sustainable Development Goal 9.1, while another US\$3.3 billion would be required to reclassify and reconstruct currently unclassified rural roads. This amounts to nearly 40 percent of the country's GDP. According to the road development plan prepared by the MTPPW, at least US\$300 million would be needed annually to maintain the current priority national/primary road network alone. That figure would then increase, year by year, as more roads are upgraded or reclassified. Over the past decade, Madagascar's expenditure on road rehabilitation and maintenance has been limited (amounting on average to US\$31 million during



the 2011–2016 period), with a focus on urgent rehabilitation, mostly funded through multilateral arrangements, supplemented only marginally, if at all, by national resources.

17. **Madagascar has a dedicated fuel levy to finance road maintenance activities managed by the Road Fund, yet its resources are limited.** Under the current pump rate of seven percent for the road fund levy, about US\$30 million should in theory be collected annually. However: (i) these levels of resources are well below existing maintenance needs, let alone investments; (ii) the full amount is often not collected, with significant arrears being accumulated by oil companies, although this has improved in recent years; (iii) there are delays in the timely transfer of these resources from the BFM, where the funds are deposited, to the RF. Madagascar’s dedicated fuel levy is lower than regional comparators (Figure 7), and although an increase from seven to ten percent was approved a few years back, it has still to materialize. The hesitation is due to governmental concerns about potential social implications, despite international and regional experience demonstrating that low fuel costs and fuel subsidies are socially regressive, and that increasing fuel taxes will only slightly affect the top two income quintiles. Increasing the tax from seven to ten percent will in any case have only a marginal effect, if any: it is a slight increase, generally below typical inflation rates and international oil price fluctuations. Due to the limited financial resources and poor road maintenance planning, the maintenance backlog is substantial. Available resources from both the RF and the national budget are clearly inadequate to the task of clearing it.

Figure 7: Fuel Levy Comparison Among African Countries



18. **The allocation of scarce resources would benefit from a more robust and up-to-date road asset management approach to improve prioritization and increase the efficiency of expenditure.** Given the significant unmet needs and scarcity of available resources, it is essential to develop a road asset management system and a proper institutional framework to enhance the prioritization of road investments and maintenance works. Only such an approach will maximize the overall connectivity of the network. By contrast, fragmented road investments are neither effective nor sustainable. The prioritization should accommodate important technical variables such as traffic volumes, road condition, road safety risks, and climate risks, while also reflecting important socioeconomic variables to enhance the developmental objective of these investments. The diversification of contractual arrangements and maintenance practices based on international experience will help improve the efficiency of expenditure and the longevity of roads. This will entail the introduction of performance-based contracts (PBCs), microenterprises, and road resilience measures. Globally, PBCs have demonstrated large efficiencies in road sector expenditure, especially for road rehabilitation and maintenance. These agreements remunerate contractors on the basis of actual performance, on the road, rather than



works costs incurred, and are typically structured as multi-year contracts, thus ensuring a longer-term commitment to the maintenance of road assets. The World Bank is supporting the MTPPW in the preparation and update of a modern road asset management system for more efficient road prioritization and management, as well as additional capacity building activities to the RA and RF.

19. **The Government of Madagascar is cognizant of the importance of the road and transport sectors which are a key part of its national and sectoral plans.** The *Plan Emergence Madagascar* (PEM), a key national document setting an ambitious vision for the country's development. It highlights the roads and transport sectors as key for the development and modernization of Madagascar, and envisages ambitious targets for the upgrade and expansion of all transport modes. The PEM is also being developed in parallel to another long-term infrastructure development plan, deliberately named the Marshall Plan, which would further detail the large infrastructure investment needs and priorities. MTPPW is also developing a new road sector strategy that identifies the key priorities and vision for the sector, especially for the national roads network. The new draft strategy, "*Stratégies et Programmation des Activités 2020–2024*" ("*Strategies and Programming of Activities 2020-2024*") prioritizes the upgrade of the existing trunk road network (national roads) which carries the bulk of traffic volumes and improves the connectivity between the various parts of the country. The trunk road network is relatively modest in extent, yet it remains in poor condition overall. The strategy aims to upgrade most of the 11,000 km of national roads from earth roads to paved roads to ensure year-long accessibility, while also increasing expenditure on periodic and routine maintenance to ensure the sustainability of these investments. Selected feeder roads in the vicinity of the national roads will also be improved in parallel to major upgrades, to ensure last-mile connectivity for rural communities in proximity to the trunk network, similar to the approach adopted under the ongoing PACT for the upgrade of the RN44 and RN12A and associated feeder roads.

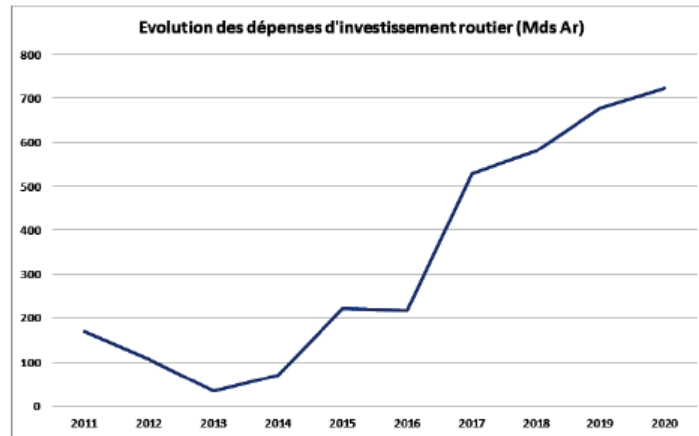
20. **In line with its vision to upgrade and improve the quality of its existing road network the Government has substantially increased its allocation in recent years to the road sector and has plans to increase it further.** The Government, supported by donors, has substantially increased its financing of the sector, tripling its investments over the past five years to reach about US\$200 million in 2020, amounting to roughly 14 percent of the national budget (Figure 8). The Government's approach is to use donor funds and most of the national budget allocations for major rehabilitation and upgrades of the national roads, while using 80 percent of RF resources primarily for periodic and routine maintenance of the national network and the remaining 20 percent for the maintenance of local roads. The Government is now authorizing and mobilizing about MGA 200 billion (about US\$50 million), from the RF resources for 2021 and the projected RF resources from 2022, to undertake periodic and routine maintenance. Given that the available RF resources are not sufficient to cover road maintenance needs, the Government is also seeking support through this Project to expand its periodic and routine maintenance program for the national roads. It is at the same time working to increase RF resources in the mid-term by implementing the approved ten percent fuel levy increase and preparing a strategy to diversify and include additional potential sources of dedicated taxes and revenues (such as from driver licenses, vehicle registration, telecom operators using road infrastructure, land sales and so on). Following the Government's request, the World Bank is preparing a large Multi-Phased Program (MPA) of about US\$1 billion, intended to leverage additional private and multilateral financing, to implement a multimodal national investment plan in the transport sector with a large focus on the rehabilitation and upgrade of roads.



Table 1: Evolution of Public Investments in the Road Sector in Madagascar

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Billion MGA	169	106	34	70	222	217	529	582	678	723
Million US\$ equivalent	43	27	9	18	57	56	136	150	174	186

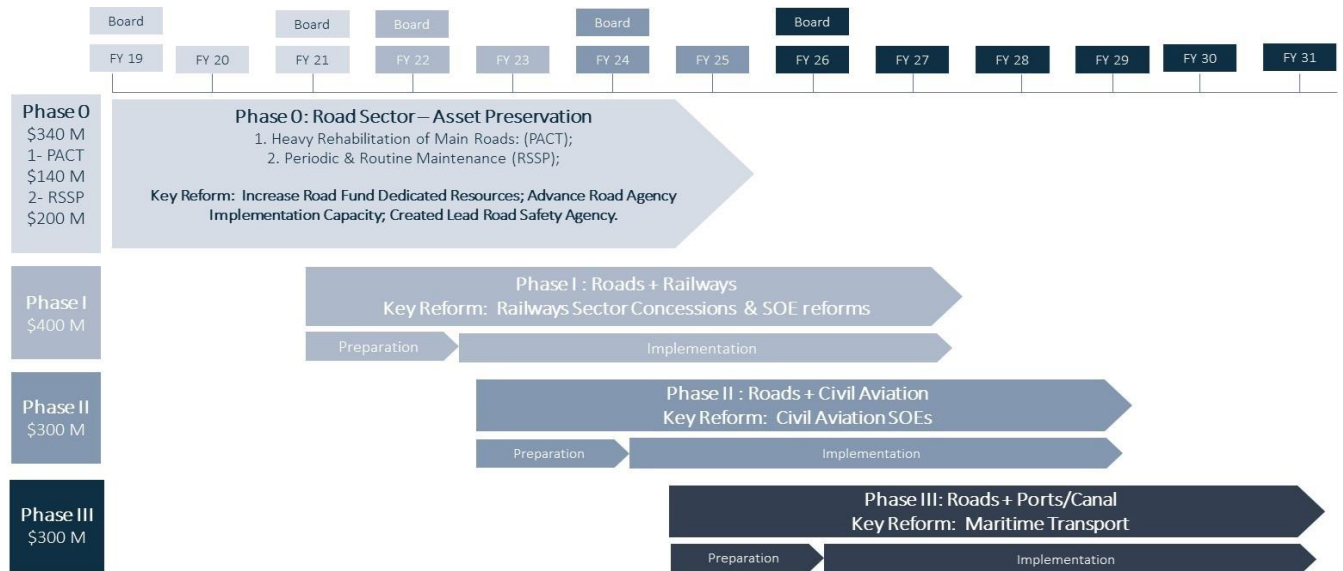
Figure 8: Evolution of Public Investments in the Road Sector in Madagascar (MGA, billions)



21. **The proposed Project will support the Government’s vision for the long-term development of the roads and transport sectors, conceived through a strategic and multimodal lens.** Previous road and transport programs were rather disjointed. By contrast, the overall Government vision is to have a programmatic approach that addresses key transport bottlenecks in a systematic manner. The proposed Project, together with the ongoing PACT, can be considered the preliminary “phase 0” of a programmatic approach the World Bank is considering, under a potential three-phase MPA under preparation. Because the road sector is the dominant transport mode in Madagascar, the focus of “phase 0” is primarily on advancing road sector reforms and on asset preservation and maintenance. Road sector developments will continue under all phases of the planned MPA and Government programs, given the large needs, with further reforms and transport modes being addressed under subsequent phases to improve intermodality and increase efficiency in the transport sector. Figure 9 provides a quick snapshot of the phasing and scope of this strategic, long-term approach.



Figure 9: Focus and Sequencing of Potential Areas of WB Support to the Transport Sector, Under Preparation and Subject to Approval, within a National Multimodal Approach to the Development of the Transport Sector.



22. **These programs will significantly contribute to improving national and rural transport connectivity, yet important systems need to be put in place to ensure the sustainability of these efforts and investments.** The ongoing PACT, as well as the planned MPA and other ongoing government and donors’ programs, are mobilizing large resources primarily aimed at improving national and rural transport connectivity. However, there are concerns that without adequate maintenance, the assets created or rehabilitated, at huge expense will rapidly deteriorate and cease to serve their purpose. The proposed project focuses on putting in place systems, practices, and adequate financial capacity to ensure the proper maintenance and sustainability of road sector investments on the paved national network. This will also entail building the required institutional capacity to manage the road assets efficiently.

23. **Important financial, technical, and institutional reforms are ongoing to improve the overall sustainability of the road sector.** As discussed, the Government is increasing its own expenditure on periodic and routine maintenance and is planning to increase RF resources to ensure a more sustainable financing of road maintenance. The MTPPW and RA are also updating the road asset management systems to optimize expenditures and to include a multi-criteria analysis for the selection and prioritization of roads. New and innovative road maintenance techniques and contracting modalities, such as the use of PBCs, as described above, and microenterprises for labor intensive road maintenance, are being proposed to be piloted under the proposed Project and the MPA. These seek to increase the efficiency and sustainability of road works, efficient expenditure and create employment opportunities for the rural population (targeting youth and women). The development of a proper institutional framework for road safety, and the preparation and implementation of the national road safety action plan, will be a major step forward in systematically tackling road safety in Madagascar. The Government has also reviewed the technical norms and standards for road designs and maintenance to improve climate resilience and is working to update its national standard bidding documents to reflect these new standards and practices. The PACT project is supporting several activities to increase the resilience of the road sector in collaboration with the sector agencies and the “Cellule de Prévention et Gestion des Urgences” (Emergency Prevention and Management Unit). This proposed project will use the new resilient maintenance standards developed by the client and will continue mainstreaming resilience in road construction and maintenance. Important efforts are being taken to create



direct and indirect job opportunities through these investments, and to tailor maintenance packages to encourage local enterprises to participate in road works (given the scarcity of jobs due to COVID-19).

24. **Building on the experience of the ongoing PACT project, this project will support the Ministry of Public Works to incorporate activities that will aim to enhance women’s participation in the road sector and manage the risks associated with an influx of labor for civil works.** The Ministry, supported by this project, is aiming to implement a series of activities that will address the specific mobility needs of women to improve their access to education, health and jobs and increase their participation in the transport sector, including through targeted training opportunities. Gender disaggregated data will be collected to measure the impact of these activities. The project has been screened and assessed for Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) risks and an action plan has been designed following the recommendations for an extensive operation accordingly (See annex 2). The project will build upon the experience and capacity developed under the PACT project on managing SEA/SH risks. Measures to implement the recently approved national law on Gender-based Violence (GBV) will be treated as part of the increased investments in the sector, especially those supported by the World Bank.

C. Relevance to Higher Level Objectives

25. **The project supports the World Bank Group (WBG) twin goals of reducing extreme poverty and promoting shared prosperity, with a view to sustainability and inclusive growth.** The program will contribute directly to enhance connectivity to wider economic activity, employment, and basic social services, resulting in direct benefits to communities where extreme poverty is still pervasive. The Project’s design focuses on improving connectivity between all parts of the country, in a sustainable manner, hence reducing disparities and “economic distances”.

26. **The project also supports the World Bank Africa Region Strategy, particularly in relation to job creation, improved institutions, addressing climate change challenges, and reducing the drivers of fragility and conflict.** The World Bank’s Africa strategy (2019–2023) is focused on six priorities: (i) creating jobs and transforming economies; (ii) expanding the digital economy; (iii) making institutions more efficient and accountable; (iv) investing in people; (v) supporting climate change mitigation and adaptation; and (vi) addressing the drivers of fragility, conflict and violence. The proposed project is aligned with all the strategy’s priority areas, in particular in relation to creating jobs directly (in construction) and indirectly (such as in agribusiness, industry, or tourism), improving governance and institutions, reducing greenhouse gas (GHG) emissions and building more resilient infrastructure, as well as improving connectivity between all parts of the country, hence reducing economic distances and disparities and the associated risks of fragility and violence. The project contributes to the objectives of the World Bank’s Next Generation Africa Climate Business Plan and Madagascar’s Nationally Determined Contribution to the United Nations Framework Convention on Climate Change, through its emphasis on reducing GHG emissions and strengthening climate resilience and adaptation of the road and transport sector and communities served.^{9,10}

27. **The project is also fully aligned with the World Bank’s FY17 to FY21 Country Partnership Framework for Madagascar (CPF - Report No. 114744-MG), which aims to build on current relative political stability to help address structural fragilities that hamper sustainable development.** The project supports the two focus areas of the CPF: (a) promoting inclusive growth and (b) increased resilience and reduced fragility. These two areas support the priorities of the Government’s National Development Plan, which seeks to generate a more rapid, inclusive and sustainable growth

⁹ World Bank. 2020. *The Next Generation Africa Climate Business Plan: Ramping Up Development-Centered Climate Action*. <https://openknowledge.worldbank.org/handle/10986/34098>

¹⁰ Madagascar’s Intended Nationally Determined Contribution, 2015. (URL: *Madagascar INDC Eng.pdf (unfccc.int)*).



path to reduce poverty. The CPF recognizes the constraints presented by poor transport connectivity, limiting access to economic activities and markets. The CPF also cites inadequate access to well-performing transport infrastructure as one of the most serious impediments to the country's competitiveness and inclusive growth in urban and rural areas alike. The CPF references the Global Competitiveness Index, where on a scale of 1 to 7, the quality of roads in Madagascar is 2.2. The constraints within the roads and transport sectors affect other productive sectors of the economy, such as agriculture and tourism. Support for transport infrastructure plays a vital, integral role in the economic and financial returns realized in these sectors. By seeking to improve and sustain road connectivity in Madagascar, the Project echoes the CPF's proposal for an increased focus on measures that will unlock constraints and promote investments.

28. The project is also aligned with the CPF that was recently adjusted to reflect the WBG's response to the COVID-19 pandemic. The revisions made to the CPF are detailed in annex 3. The significant impacts of the pandemic on Madagascar will have a major impact on the country's development financing needs over the next two years, thereby requiring adjustments to the WBG country program. In line with the WBG COVID-19 Crisis Response Approach Paper from June 2020, resources have been realigned to support priority actions aimed at saving lives threatened by the virus; protecting the poor and vulnerable; securing the foundations for the private sector; and strengthening policies and institutions for increased resilience based on transparent, sustainable debt and investments. Program adjustments include: (i) reallocation of portfolio resources through activation of the Contingent Emergency Response Component (CERC) and restructuring and reallocations of existing programs; (ii) developing new operations responding to the pandemic that were not envisioned in the original CPF program to respond to the COVID-19 pandemic; and, (iii) reprioritization of the CPF pipeline to advance operations that were planned for later years.

29. The proposed project supports key higher objectives to address climate change challenges, especially adaptation, through enhanced infrastructure maintenance. Ensuring year-round accessibility through a sound maintenance program will improve access, and enhance the resilience not only of the roads, but also of the communities served by them. Improving connectivity through more resilient infrastructure is also critical to minimize the impact of climate extremes and natural disasters, and to ensure a lifeline supply of critical goods and medicines during periods of crisis and epidemics such as COVID-19. The project will also support the creation of jobs, for both men and women. Specifically, the Project will support the training of women and the direct creation of jobs for women in road maintenance, as well as improving women's access to markets and services. Finally, the Project will contribute to improving road safety in Madagascar, by supporting the improvement of road safety management capacity at the institutional level as well as improving implementation and technical practices.

30. The proposed project is aligned with ongoing World Bank projects and operations in Madagascar. The project is aligned with the ongoing Connectivity for Rural Livelihood Improvement Project (P166526) that is laying the foundation of road network reforms geared towards opening up largely untapped geographical areas as new frontiers for business and markets. This project is also expected to enhance work already being undertaken under the Madagascar Agriculture Rural Growth and Land Management Project (P151469) that seeks to improve rural land tenure security and access to markets for targeted farming households in selected agricultural value chains. This will open up comparatively remote or marginalized areas to markets and enable the flow of food to them. The new Economic Transformation for Inclusive Growth Project (P174684) will provide significant support for the subsequent economic recovery, with an expanded sector and geographical coverage, and a focus on economic transformation including through digital entrepreneurship. In addition, one project has been brought forward, the Madagascar Integrated Growth Poles and Corridor SOP-2 Project (P164536), which builds on a proven and successful Madagascar growth poles approach. This is part of a strongly complementary approach whereby the ongoing Growth Poles Project is being restructured to scale up immediate support to the private sector during the COVID-19 crisis, with additional funds from the portfolio-level CERC. Like the above-mentioned Inclusive Growth Project, the new proposed Growth Poles Project will provide significant support for the



subsequent economic recovery, with an expanded sector and geographical coverage, and a focus on economic transformation including through digital entrepreneurship.

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

The Project Development Objective (PDO) is to improve the longevity, safety and climate resiliency of selected paved primary roads in Madagascar

PDO Level Indicators

31. The PDO-level indicators and targets of the Project include:
- Additional national paved roads in good or excellent condition (percentage);
 - National paved roads with safe and more climate-resilient features (percentage).

B. Project Components

Component 1. Improving Road Condition and Resilience (US\$180 million equivalent)

32. This component will finance works and consultancy services to support periodic and routine maintenance on national paved primary roads in different regions of Madagascar. It is estimated that about 1,200 km of paved roads that are in fair to poor condition, representing 20 percent of the national paved road network, will benefit from periodic maintenance under this project. While a long list of paved roads has been identified as a priority, the exact roads to be retained for financing under this project, and the exact sections on those roads are yet to be defined pending completion of the ongoing engineering studies. All the works under this project will be done within the existing right of way and include light and routine maintenance on roads that are in good to fair condition (crack sealing, filling potholes, cleaning drainage, signage, fencing and so forth) and periodic maintenance on roads in fair to poor condition (typically a five centimeter pavement overlay, with maintenance of supporting structures). Roads in very poor condition will be outside the scope of this project as they need heavy rehabilitation to be financed through other projects such as the MPA under preparation.

33. As part of increasing the sustainability of the investments, all roads to be financed through this project will use the recently developed resilient road construction and maintenance norms and standards for Madagascar.¹¹ In addition, all roads will have road safety audits (audits of designs as well as audits of works) to ensure proper safety measures are incorporated. The project will provide financial and technical support to pilot PBCs for the maintenance of selected road sections and capacitate the Road Agency by funding the purchase of vehicles, transportation and communication equipment.

Component 2. Technical Assistance and Support to Roads and Transport Sector Reforms (US\$ 20 million equivalent)

¹¹ The project will use the *Norme Nationale pour des Infrastructures Routières Résistantes aux Inondations et aux Phénomènes Géologiques* (NIRIPG) issued by Decree No. 2020–1156, of September 16, 2020.



34. This component will primarily finance consultancy services and goods aimed at supporting capacity building and activities within the roads and transport sector to strengthen institutions and to ensure the sustainability of connectivity, among other aims, in the following areas:

(a) Strengthening the institutional, regulatory, and planning capacity of the MTPPW and the newly created RA and RF (US\$3 million equivalent). This activity includes the preparation of a transition plan for the full transfer to the RA, the management responsibility for the primary road network; the preparation and approval of a road sector financing strategy, including on increasing RF resources; and the purchase of information technology (IT) and other equipment for the benefit of the RA, RF, and MTPPW. The MTPPW, RF, and RA will define the needs, draft the required terms of reference (TORs) and technical specifications, to be processed by the RA.

(b) Strengthening the institutional, regulatory, and planning capacity of the Ministry of Transport (MOT) and dependent agencies (US\$3 million equivalent). This activity includes review of and support for the ongoing national ports master plan; support for the review of mid-term plans and review of feasibility studies for the development of secondary airports; support studies for improving land transport efficiency; and the purchase of IT and other equipment for the benefit of the MOT and dependent agencies. The MOT, supported by dependent agencies, will define the needs, draft the required TORs and technical specifications, to be processed by the RA.

(c) Building capacity and delivering training for testing and adopting new maintenance regimes (microenterprises, PBCs, new resilience standards) for better planning and management of road infrastructure (US\$1 million equivalent). This activity includes technical assistance, equipment and training of RA staff needed to: (i) develop their capacity to perform under a results-oriented framework that defines clear objectives and focuses on better service to users; (ii) preparation of bidding documents, technical specifications, key performance indicators (attained through new PBCs); (iii) reviewing legal and budgeting frameworks to introduce multi-year contracts; (iv) capacity building and sharing international experience with RA and MTPPW, and review of the capacity of the local contracting industry and workshops to introduce these new concepts. Activities will be implemented by the RA in collaboration with technical inputs from MTPPW.

(d) Continue support to the lead road safety agency, under creation, for improving road safety and implementing the road safety strategy and action plan under preparation (US\$10 million equivalent). This activity includes financing IT and other equipment for the road safety agency, establishing a road safety observatory and collecting road crash data and statistics, undertaking a number of national awareness campaigns and other activities identified in the action plan under preparation. The lead road safety agency will define the needs, draft the required TORs and technical specifications, to be processed by the RA.

(e) Continue the development of a road asset management system for the prioritization of road maintenance and investments, including sustainability, climate resilience, road safety and socioeconomic variables such as poverty and access to markets and services (US\$1 million equivalent). A road asset management system is being supported under the PACT project. This includes additional activities, modules, and data collection to expand the scope of road asset management. This technical design of the road asset management components (specifications, TORs) will be jointly done by the RA and MTPPW and will be executed by the RA.

(f) Support training programs and capacity building to improve gender aspects and increase women's participation in the transport sector labor force (US\$1 million equivalent). This activity will finance studies to review constraints on women's participation in the road and transport sectors, recommend actions, and undertake awareness campaigns and skill development programs to increase women's participation in the roads and transport sector. GBV and HIV/AIDS



awareness-raising campaigns will also be carried out in project areas, supported by the establishment of a sound grievance redress mechanism (GRM) and a mandatory code of conduct for construction workers. This will be executed by the RA in consultation with the MOT, MTPPW, and other agencies and associations active in the sector.

35. This component will also provide support and build capacity for project preparation, project management and implementation, and supervision, including audits as well as the implementation of the Environmental and Social Commitment Plan (ESCP). Finally, the Project will finance a well-staffed Project Implementation Unit (PIU) at the RA (RA-PIU) to support implementation of the Project **(US\$1 million equivalent)**.

Component 3. Contingency Emergency Response Component

36. This component will facilitate access to rapid financing by allowing for the 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 Government. Following an eligible crisis or emergency, the Government may request that the World Bank re-allocate project funds to support emergency response and reconstruction. This component would draw upon uncommitted resources from other project components to cover emergency response. A CERC Manual and an Emergency Action Plan, acceptable to the World Bank, will be prepared and constitute a disbursement condition for this component.

C. Project Beneficiaries

37. **The direct benefits of the Project will be sustained accessibility, more reliable and safer road infrastructure, and reduced travel costs.** These benefits will result from project investments in road infrastructure emphasizing, in particular, climate change resilience and road safety. The improved condition of roads comprising the trunk network will reduce economic costs. This will facilitate the growth of regional economies and the increased competitiveness of 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 and efficiencies of public agencies, which will contribute indirectly to the sustainability and resilience of road infrastructure.

38. **The beneficiaries of this project are road users and the inhabitants of cities and towns connected by the roads to be maintained.** While the exact sections to receive maintenance under this project will be defined during implementation, the client is considering the national road network, including sections of the RN2 which is the main road linking the Capital Antananarivo to the main port at Tomasino, and of the RN7 linking Antananarivo to Toliara, among other national roads linking main cities and neighboring towns. By maintaining about 1200 km of the trunk road network, the impact of the Project is national. Most road users and a large proportion of the volume of national traffic (both goods and passengers) will benefit from having access to safe roads in good condition. Cities, towns, and rural areas adjacent to or served by or connected to the maintained roads will also benefit from reduced transport costs and externalities which will also translate into better connectivity and increased access to markets and services.

39. **Additional direct beneficiaries include contractors and workers in the road sector and associated supply chain, especially the low-skilled, women, youth and the poor.** The transport and construction sectors are important sectors in the Malagasy economy and have been a major driver of growth in the past few years. These sectors have been badly hit by the COVID-19 pandemic that resulted in widespread unemployment. The project will create construction jobs and significant temporary employment during the five-year project implementation period, which will help industries and the vulnerable population, especially the poor and low-skilled, including women, who represent the main labor force in these

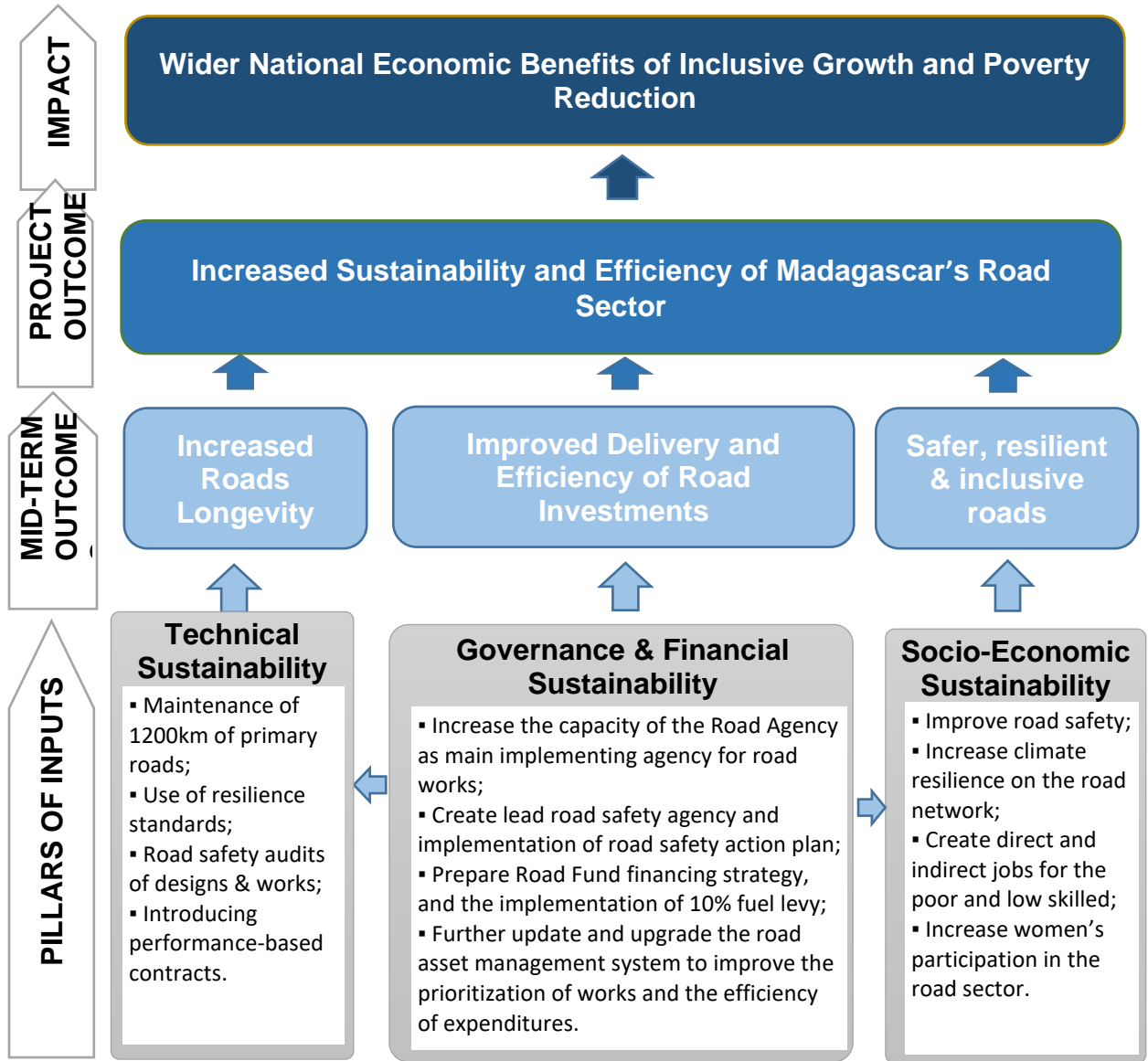


sectors. Training programs will also specifically target women in some aspects of road construction and maintenance, such as operating plant and equipment, to increase their participation in the road sector labor force.



D. Results Chain

Figure 10: Project Theory of Change



40. **The proposed Project supports the Government's vision of increasing the sustainability of road investments for inclusive growth and poverty reduction.** The Project addresses key road sector sustainability challenges under three main areas: (i) improving the technical sustainability of the road network, (ii) improving governance and financial sustainability, and (iii) improving the socioeconomic sustainability of the road network. Increasing periodic and routine maintenance will substantially increase the serviceability and longevity of large segments of the primary road network, with the use of improved climate resilience and maintenance standards, the undertaking of road safety audits, and



technical assistance to pilot new maintenance techniques and contracting modalities. In many countries around the world the introduction of PBCs to manage a road network has proven to be a cost-effective way to ensure its gradual conversion to a steady-state condition. This is because these are long-term contracts that bundle the initial works needed to bring the roads to a determined level of service with the routine maintenance needed over several years, whereby contractors are paid for the delivery of results, ensuring the condition of the road over the contract period. By focusing on the maintenance of the network, the Project is helping to consolidate a road asset management strategy that gives adequate attention to preserving existing assets in good condition and to ensure safety and resilience of the network, strengthening the institutional set-up. This will help the RA to break the vicious cycle of rehabilitating roads, effectively doing nothing to them for the next 10 years, and then having to rehabilitate or reconstruct them. Meanwhile, financial sustainability is improved by increasing government expenditure in the sector through its own resources alongside this proposed project, as well as increasing the RF dedicated resources. The use of an updated road asset management system allows a more efficient use of the scarce resources in the sector. Increasing the capacity of the RA will substantially improve the timeliness, quality and delivery of road projects, while creating a lead road safety agency will create the proper governance framework to oversee and implement the road safety action plan. Finally, important environmental and socioeconomic sustainability measures are included to deliver a more people-centered roads intervention and increase the benefits for and participation of vulnerable groups in the Project, particularly the poor and women. The entire array of measures, under the three pillars combined, will increase the overall sustainability of the road sector and enhance its important contributions to the wider economic objective of inclusive growth and poverty reduction.

E. Rationale for Bank Involvement and Role of Partners

41. **Given the large size and difficult topography of the country, low population density, and low traffic volumes, it has long been a challenge to finance road sector development.** The road sector in Madagascar is solely dependent on public sector financing, most of which is contributed by the international donor community. It is impossible to bring private sector contributions to bear in the rural context where the traffic levels are often too low to justify investment even in economic terms, let alone in financial terms. Public financing is also typically required for road maintenance, both periodic and routine. The project is nevertheless supporting activities, such as the introduction of performance-based contracting, that could increase private sector participation and financing of road maintenance in the future. Certain road sections of the trunk network could be considered under a Public Private Partnership (PPP) in the future, but traffic volumes on much of the network do not currently justify such an approach. On the few sections where traffic volumes are considerable, there are generally no viable alternative routes, making the prospect of PPPs on such sections a costly one for an already poor population.

42. **The World Bank's involvement is triggering a systematic and sustainable approach to road maintenance in Madagascar, supporting important sector reforms and new technical know-how.** The World Bank's involvement will contribute to bringing substantial institutional, technical, and financial innovation to the road sector. The proposed project aims to support the Government's efforts to strengthen the financial sustainability and efficiency of public expenditure on road development and maintenance. The World Bank's involvement brings a wealth of international experience in supporting road sector reforms such as in operationalizing road agencies, strengthening the road fund, and creating a road safety agency, as well as technical support and innovations in relation to road asset management, resilience in road maintenance and construction, road safety audits and support on PBCs.

43. **The World Bank financing for this Project is enabling and providing key building blocks in support of a longer-term national transport development program.** The Government of Madagascar is keen to develop a long-term Transport Development program with support from the World Bank and other development partners. Following the Government request, the World Bank is preparing a US\$1 billion transport MPA to be implemented over 10 years in



support of strategic multimodal transport sector investments and reforms to uplift this critical sector in Madagascar. This program is also mobilizing substantial parallel financing, in a highly coordinated manner, with other development partners, such as the African Development Bank (AfDB), European Union (EU), Japan International Cooperation Agency (JICA), the Government, the International Finance Corporation (IFC) and the private sector. This Project is one of the building blocks for this larger program, as it continues to support vital road sector reforms and investments aimed primarily at increasing implementing capacity and sustainability in the transport sector, with an important focus on maintaining road assets. The Project will likely target roads that have benefited from rehabilitation investments in the past decade, so as to increase the longevity and sustainability of those investments, and encourage development partners, who typically are concerned about the proper maintenance of the rehabilitated assets to keep supporting this important sector.

F. Lessons Learned and Reflected in the Project Design

44. **The project draws important lessons from road programs implemented in Africa and elsewhere in recent years, as well as from the ongoing PACT.**

45. **It is vital to undertake maintenance of the road network to preserve it and reduce the need for costlier repairs and heavier rehabilitation in the future.** In most developing countries, and particularly in Madagascar, the road sector suffers from neglect and poor maintenance, resulting in rapid and costly degradation of the network. Faced with constrained budgets, and a sizeable rural population scattered over a large territory, developing countries are often “playing catch up” on road investments, meaning that the scarce resources available to them are used for urgent repairs. The neglect of systematic maintenance, however, results in the rapid degradation of the network, quickly eroding the value of these investments, and perpetuating the need for further urgent and costly repairs later on. Madagascar has even lost a large part of its road network: sections were rehabilitated, and sometimes paved, only to deteriorate so drastically that they became largely unusable. Several studies have shown that when considering the life cycle of a road, for every dollar invested in maintenance, three to four dollars are saved in terms of rehabilitation and heavy repairs.

46. **Strengthening institutions is important for proper planning and execution of road works, and for increasing absorptive capacity.** Most developing countries lack proper road planning tools with which to efficiently allocate the scarce resources at their disposal, hence the importance of a well-developed road asset management strategy. The low level of investments in these countries is typically coupled with weak implementing institutions, and slow and inefficient procedures both for the public sector agencies as well as for local engineering and construction firms. Creating a dedicated road agency, properly staffed and focused on the timely execution of road works, has been an important instrument in many developing countries to accelerate the delivery of road investments, and to bypass the typically larger and more bureaucratic institutions and ministries. It has also facilitated the piloting of new and innovative maintenance practices and contracting modalities. The availability of a now effective PIU within the MTPPW managing the PACT project, and the creation of a parallel PIU within the road agency for the implementation of this Project, will double the implementation capacity and increase the absorptive capacity of the road sector. This will be instrumental as the sector’s resources begin to increase, with investments through the MPA and from other donors and sources of finance. The large investments will also trigger a new dynamism in the engineering and construction industries, attracting additional skills and increasing the competitiveness and efficiency of the sector.

47. **It is important to consider political-economy factors in the scope and timing of reforms.** International experience, as well as experience in Madagascar in various sectors, clearly demonstrates that it is critical to design reforms, in terms of scope and timing, to fit national and political-economy contexts. Such factors, including those arising from the pandemic, impact the ability of governments to move ahead with certain reforms, especially any that have



financial implications. The project design—framed within a long-term development vision for the sector to be supported by the planned MPA, allows for a gradual progression of reforms, starting with the ostensibly most tractable elements, such as the road safety strategy, and lead road safety agency, as discussed and supported by the Government. Meanwhile, other reforms, with financial implications for users, can be assigned to later years during the allotted five-year period of project implementation.

48. **The coordination of donors’ efforts and investments is vital if Government reforms are to be supported effectively.** Following Government request, the World Bank is preparing a large transport MPA to be implemented over 10 years in support of strategic multimodal transport sector investments and reforms to uplift this critical sector in Madagascar. This program is also mobilizing substantial parallel financing, in a meticulously coordinated manner, with other donors (such as AfDB, EU, JICA), the Government, IFC and the private sector. This project is one of the building blocks for this program as it continues supporting important road sector reforms and investments aimed primarily at increasing the implementing capacity and the sustainability of these large donors’ programs, with an important focus on maintaining road assets. This project will likely target roads that have in the past two decades benefited from rehabilitation investments from the World Bank and/or other international partners, therefore further increasing the longevity and sustainability of such investments, and encouraging most donors, who typically are concerned about the proper maintenance of the rehabilitated assets to keep supporting this important sector. Donor programs are also supporting complementary reforms, such as JICA’s and the World Bank’s support to review and implement the road asset management system; as well as supporting parallel investments such as on the RN12A where the World Bank (under PACT), the EU, and the AfDB are rehabilitating in parallel, sections of the RN12A to result in one upgraded road.

49. **The inclusion of important sustainability aspects in the design of road projects is essential to increase their longevity, and efficiency, as well as the impact on communities and the economy. In addition to financial sustainability and institutional capacity, road safety, climate resilience, and social and gender dimensions are critical to increase the development impact of road projects.**

50. **For improved road safety outcomes, it is crucial to adopt an institutional strategy that is results-focused and to create institutions equipped with the proper resources to execute it.** The project will support the action plan and the results-focused road safety strategy that is currently 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, compromising the plan’s effectiveness. Institutional responsibilities and accountabilities for road safety, which is largely intersectoral by nature, become a key requirement in a shift to the ‘safe system approach’ which requires higher levels of accountability for safe performance of the various interventions and of the responsible agencies.¹²

51. **Madagascar is vulnerable to climate extremes, particularly cyclones and heavy precipitation, which are detrimental to the performance of roads and require more resilient infrastructure.** Heavy precipitation and water saturation, in addition to the heavy weight of traffic, are the two critical loads that typically accelerate road deterioration.

12 Under the Safe System Approach, it is accepted that since road users are human, there will always be the possibility of crashes occurring, despite a continued emphasis on prevention, and that there are limits to the capacity of the human body to survive various crash types above certain speeds of impact. It therefore places a priority on systematically addressing the major factors involved in specific types of crashes to achieve substantial benefits in the reduction of road trauma incidents over time. The Safe System Approach aims to minimize the severity of injuries and is based on the premise that road users should not die because of system failings. It focuses on managing aspects of road safety in accordance with the UN Pillars of the Decade of Action: (i) Road Safety Management; (ii) Safer Roads and Mobility; (iii) Safer Speeds; (iv) Safer Vehicles; (v) Safer Road Users; and (vi) Post-Crash Response



Madagascar often receives intense rainfall and adapting its road infrastructure to cope with such extremes is a critical development challenge for the country. Increasing drainage capacity and frequently cleaning drainage systems to ensure proper water flow, maintaining and improving slope stabilization structures, immediately treating road surface defects (filling potholes and sealing cracks), and all routine maintenance activities, will play a critical role in increasing the longevity of the roads and reducing their vulnerabilities, including improving the resilience of their supporting base and other structures to heavy precipitation and water saturation.

52. **Road and transport systems should follow people-centered designs, with important gender, poverty, and youth considerations to maximize their effectiveness and to properly serve their intended users.** Infrastructure is for users: for the transportation of goods and people. Assessing the characteristics of the intended users and disaggregating the collected data, by gender, income group, and age group, will feed into better design of systems that serve their users better. Women are typically excluded from road sector jobs and often suffer from discrimination and/or GBV, and it is important to consider measures to further increase women’s participation in the road sector labor force and its supply chain. Proper measures to safeguard against SEA/SH risks should also be put in place. The project benefits from the measures established under the ongoing PACT project such as awareness campaigns for workers, the inclusion of SEA/SH clauses in works contracts, and the mobilization of service providers to address GBV. Road investments should also aim to improve access to markets and services for the poor, while also creating important employment and training opportunities for the poor and low skilled. Students, especially in rural communities, also often face difficulties in accessing schools due to poor roads and transport systems.

53. **This Project will build on the experience and successes of the ongoing PACT project** and will continue supporting the advancement of important road sector reforms and enable additional measures to be implemented over a longer period under the proposed MPA under preparation. Table 2 summarizes how the ongoing PACT project, this proposed Project, and the proposed MPA will continue reforms in key areas of the road sector such as i) road rehabilitation and maintenance, ii) road safety, iii) climate resilience in roads, iv) road agency reforms, and v) road fund reforms.

Table 2. Complementarity and continuity of road sector reforms

	Connectivity for Rural Livelihood Improvement Project—PACT (IPF)	Madagascar Road Sector Sustainability Project (IPF)	Connecting Madagascar for Inclusive Growth (MPA)
Road Rehabilitation and Maintenance	Rehabilitation works on RN44 and RN12A; and associated secondary roads.	Reinforcing asset preservation practices by supporting periodic and routine maintenance on the national road network. Piloting PBCs.	Continued and scaled-up road rehabilitation works on the primary road network and associated feeder roads. Rolling out PBC modality.
Road Safety	Studies and TA to prepare road safety strategy and inform reforms.	Adoption of the strategy and action plan, creation of national committee on road safety and the lead road safety agency, start of implementation of action plan.	Support operations of created agencies and continue the execution of road safety strategy and action plan.
Climate Resilience in Roads	Studies and TA to review and improve design and maintenance practices.	Maintain roads using the new climate-resilient standards; and use climate hazards as part of road asset management and prioritization.	Large-scale implementation of new technical norms in all transport modes.
Road Agency	Studies and TA to support RA capacity and inform reforms.	Implementation capacity strengthened, responsibilities defined for management of national	Support the gradual increase of RA’s capacity to fulfill its responsibility; RA to implement program components on national roads. Support gradual



	Connectivity for Rural Livelihood Improvement Project—PACT (IPF)	Madagascar Road Sector Sustainability Project (IPF)	Connecting Madagascar for Inclusive Growth (MPA)
		roads, and recruitment of key staff and engineers completed.	transition of RA to become a results-oriented organization.
Road Fund	Studies and TA to support RF capacity and inform reforms.	Increased financial resources of the RF by at least 50 percent (implementing the 10 percent fuel levy); strategy to diversify and better leverage RF resources developed.	Ensure the RF’s sustained role over a longer period; continue gradual increase of RF resources; and expand RF financial instruments (guarantees, direct borrowing, PPPs).

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

54. **The Road Agency will be the implementing agency of the Project, in line with the ongoing sector reforms to empower the RA as the implementing agency on all national roads.** The RA, as the successor of the former *Autorité Routière de Madagascar* (ARM), has extensive technical experience with donor-financed projects, including World Bank-financed projects. The RA will be supported by the Road Fund and the Ministry of Public Works, given the close working relationship between these agencies, and the satisfactory experience of the Ministry of Public Works in its interaction with the World Bank under the ongoing PACT. The process will help the RA to increasingly take over responsibility for the rehabilitation and maintenance of the national road network. This is a logical step, given the need to keep advancing the PACT, in the spirit of ongoing road sector reforms. Finally, this collaboration will support the strengthening of the capacity of the RA, preparing it to execute the larger works that would be financed by the upcoming MPA that is currently under preparation.

55. **RA-PIU.** A dedicated PIU will be created within the RA to implement the Project. The RA-PIU will be responsible for ensuring day-to-day management of the Project, quality and compliance with the fiduciary arrangements of the Project, disbursement, the implementation of the ESCP, and monitoring and evaluation (M&E). It will work in close coordination with key sectoral ministries, agencies, and actors involved in the Project. The RA-PIU will recruit the following key staff within three months of the Effective Date of the project: (i) a Project coordinator; (ii) a procurement specialist; (iii) an environmental specialist; (iv) a social safeguards specialist; (v) a GBV and SEA/SH specialist; and (vi) a financial management officer. Additional key staff are listed in annex 2. The RA-PIU will prepare the Annual Work Plans and Budgets and semi-annual Progress Reports. The RA-PIU will receive technical assistance and implementation support from PACT-PIU, as needed.

56. **PACT-PIU.** The PACT-PIU is currently helping initiate preparatory studies for this project and will continue to provide support, as needed, during project implementation.

57. **The Ministry of Public Works retains a key role in the oversight and continuous monitoring and technical control of the Project.** A Project Technical Committee (PTC), chaired by the Director General of Public Works (DGPW) at the MTPPW, will be created to ensure direct and continuous oversight and technical guidance. The PTC will also include technical experts and representatives from the Ministry of Finance, MOT and RF. The PTC will have important responsibilities, such as: the review and validation of the Annual Work Plan, budget, and activities to be undertaken by the RA-PIU; the confirmation of selection of road sections to be proposed for World Bank financing; the technical contribution and review of several important documents and TORs such as for the design of roads, the technical



specification of TA components benefiting the respective ministerial components of the PTC. The DGPW will also provide day-to-day support to the RA and its PIU to benefit from the experience of the PACT and will have joint missions to monitor and supervise the progress of works. The DGPW is also the Chairman of the RA's Board of Directors. Several activities that will inform the design of project (selection of firms to undertake the technical feasibility and designs of roads, selection of RA-PIU members, preparation of safeguard instruments) are being initiated by the DGPW and the PACT-PIU in consultation with the RA. The PACT, managed directly by the MTPPW, has sufficient resources for the Ministry to support important reforms in the sector. Finally, as is the practice under PACT, World Bank supervision missions will be conducted under the leadership of the DGPW, and will include the Director General of the Road Agency, the Executive Secretary of the Road Fund, and representatives from the Ministries of Transport and Finance.

58. The Project will be implemented in accordance with the Project Operations Manual (POM), which includes the detailed description, costing, implementation arrangements, as well as the rules, guidelines, standard documents and procedures for the carrying out of the Project. The POM was submitted and approved by the World Bank on May 25, 2021. The POM can be updated as necessary during project implementation, however all revisions and amendments to the POM require the approval of the World Bank. Details on the POM are provided in annex 1.

B. Results Monitoring and Evaluation Arrangements

59. **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 below.

60. **Responsibility for monitoring activities.** The RA-PIU will be responsible for regular monitoring of the Project. It will produce semi-annual progress reports. These reports will help assess progress in meeting the PDO and project performance based on the indicators of the results framework. A consultant will be hired to assist the RA-PIU M&E Officer. A Mid-Term Review will be undertaken not later than three years after the Effective Date to carry out a more comprehensive assessment of the progress and performance of the Project and set out any measures needed to ensure that the Project will meet its objectives.

C. Sustainability

61. **The project, in line with its main development objective, addresses key road sector sustainability challenges.** It addresses the following technical, financial, governance, climate resilience, road safety, and gender and social challenges.

- (i) **Technical.** The project aims to maintain about 1,200 km of roads, representing 20 percent of the paved primary road network of Madagascar. Through periodic and routine maintenance, this will increase the serviceability and longevity of these roads. The project also supports the use of improved maintenance standards and practices, such as the use of climate resilience standards, the undertaking of road safety audits, and piloting new and important contracting modalities such as PBC contracts.
- (ii) **Financial.** Increasing RF resources, as well as the Government's overall expenditures and efficiency in the road sector, will contribute to increased financial sustainability. The project supports increasing the dedicated funds available to the RF, especially through applying the 10 percent fuel levy and preparing a strategy to increase other financing sources of the RF. This will contribute to substantially increasing the resources available for maintenance in the sector, by at least 50 percent. The Government's decision to prioritize the RF resources for the maintenance of the road network also supports the financial sustainability



of the sector. Meanwhile, the Government is also increasing its expenditure on the maintenance of the road network, be it through available resources from the national budget and the RF, or through mobilizing external financing such as through this proposed Project. Finally, the use of an updated road asset management strategy will support the optimization of road sector expenditure and its sustainability.

- (iii) **Governance.** The project supports the continuation and acceleration of road sector reforms started by the Government in 2019. In particular, the Project will reinforce the capacity of the RA as the main implementing agency for road works on the national road network, helping it to become effective within the short term and in accordance with the transition plan under development. The adoption of the RA as the implementing agency for this project is in line with these reforms and will contribute to expanding its implementation capacity. The project is also supporting critical reforms to advance road safety, by creating the proper institutions to lead these efforts, notably the lead road safety agency and the national interministerial committee and, crucially, the implementation of the national road safety action plan. The project is also mobilizing substantial resources for the support of the action plan.
- (iv) **Road Safety.** The Government's ongoing activities, supported through the ongoing PACT and this project, represent a major shift in Madagascar's capacity to properly manage and implement road safety measures. In addition to the critical institutional aspects of road safety discussed above, the Project is providing substantial resources for the implementation of road safety measures, through the works under component 1, and through component 2 that will support the implementation of several activities of the road safety strategy and action plan. Madagascar's road strategy, currently being finalized, fully aligns with the results-based principles of the Safe System Approach to road safety: the approach underpins its objective of reducing the country's rate of road crash fatalities by half by 2029. This objective is informed by the following principles: (i) fatalities and serious injuries on roads are unacceptable and preventable; (ii) road users will make errors that should be accommodated by the road transport system; (iii) the primary injury prevention mechanism is one of controlling the impact speed and energy transfer in a crash; and (iv) Government, business, communities, non-governmental organizations, academia and other safety partners have a shared responsibility to create a safe road transport system. The action plan under preparation will detail the exact activities to be included through vital activities, such as the creation of a national observatory for road crashes connected to the Africa Road Safety Observatory (ARSO), the review of driver and vehicle licensing and standards, mandatory road safety audits for works, the introduction of speed limit enforcement strategies, and gender disaggregation of data collected. These and other measures have already been highlighted in the strategy and will benefit from the support under this project.
- (v) **Climate Change and Resilience.** Several technical, capacity building, and institutional measures will increase the resilience of Madagascar' road sector and will be mainstreamed in the investments under this project. Madagascar's road infrastructure is under-designed and under-maintained, resulting in high vulnerability to natural hazards and climate change impacts. This project includes technical assistance to strengthen the capacity of road authorities to incorporate climate hazard considerations as part of road asset management, and to underpin the prioritization of investments in road maintenance, rehabilitation, and expansion. Technical Assistance includes strengthening the tools, processes, and data available, as well as training of the road agency staff on climate-resilient transport asset management systems. The project will also support the implementation of dedicated revenue schemes to finance the road fund, such as an increase of the fuel tax to 10 percent, aimed at securing the required financial resources to provide regular and periodic maintenance to road transport infrastructure, a key feature to ensure climate resilience and all-season connectivity. Furthermore, the Project improves the resilience of the road network and road sections



through the application of climate resilience design standards in road maintenance investments. Routine and periodic maintenance includes assets such as roads, bridges, drainage systems and landslide protection, and in this way contributes to keep the road connectivity intact year-round, even after extreme weather events. Examples of parameters that reduce climate risks associated with extreme heat include countermeasures to pavement surface deformation, cracking and the accelerated aging of binder through the use of appropriate layer coefficients, revised pavement thickness, weather-resistant pavement surfacing materials and revised asphalt mix designs, among others. Countermeasures for the thermal expansion of bridges include the use of expansion joints and accounting for the temperature increment at the design phase. It should also be noted that the Project will result in GHG reductions due to the increase in average speeds on the main roads after maintenance. The results and methodology of this analysis are further discussed in the Appraisal Summary section.

- (vi) **Gender and Social Sustainability.** The project will contribute to closing the gender gaps in the road sector by the following activities (see table 3 below): (i) implementing advertising campaigns adapted to the social context to attract women to the job opportunities generated; (ii) working with local women's groups to help contractors to meet hiring targets during the recruitment process; (iii) delivering team building programs to facilitate adaptation and communication within the road maintenance working crews; and, (iv) providing life skills training and coaching to empower women and accelerate their professional development in the sector.

- (vii) **The project will also support analytical work to better assess factors blocking women's access to work in the road sector, as well as gender norms and lack of skills which prevent women from seeking jobs in the construction sector.** The project will perform a diagnostic with construction and heavy machinery companies in Madagascar to understand the gender-related barriers to operating machinery and plants beyond social norms. Based on the results, the Project will design specific training programs (such as driving and operating plant or equipment, mechanics and machinery maintenance, and so on) in partnership with companies in the sector, to bridge the gap between skills, jobs and gender equality. Besides working with the private sector, the Project will identify employment programs in the country to house a job placement service and ensure that female trainees are connected to jobs.

- (viii) **Bridging the gap in gender data on road safety will help better inform interventions.** Data on traffic safety are not collected using a gender perspective. Consequently, road safety action plans do not consider gender differences. The Connectivity for Rural Livelihood Improvement Project is working with the Ministry of Transport to develop a national strategy and action plan and increase coordination among other agencies. The project will support the sex-disaggregation of data in the Road Accident Data Management System that will last beyond the Project cycle and will provide information for the design of road safety action plans that consider gender differences.

- (ix) **In addition to gender, the Project will create significant temporary jobs for the poor and low skilled in road construction and maintenance.** The project will improve the national and rural connectivity of Madagascar, improving the connectivity and livelihood of adjacent communities, especially for the poor. The project design is aimed at increasing opportunities for mid-size to large local contractors to undertake the required works, creating important temporary employment opportunities in most regions of Madagascar in construction, which typically employs the poor and the low-skilled. Training programs will help contractors in learning new and competitive skills (PBC contracts, new climate resilience standards), and will also assist the labor force to acquire new skills in the construction sector and associated services.



Promoting routine maintenance in Madagascar and building capacity for microenterprises at community level, which will also later be supported through the MPA, all create sustained jobs at the community and microenterprise level in road maintenance.

Table 3: Project Summary Actions to Close Gender Gap

Gender Gaps	Activities	Indicators
Women not working in construction in Madagascar	<p>1. Study to assess the barriers preventing women from working in the construction sector in Madagascar (Component 2). The study will:</p> <ul style="list-style-type: none"> • Identify and assess barriers. • Design advertising campaigns to attract women to work in the Project. • Define and design adequate and context-specific life skills trainings and coaching programs for female workers in the road maintenance crews working in the Project. • Design team building programs for the working crews. • Map women’s groups around the Project areas to work with during implementation. 	<p>- Study to assess barriers that impede women seeking to work in the construction sector and design specific actions to be implemented in the Project</p> <p>Target: 1</p>
	<p>2. Increase women’s labor force in the road sector through the Project (Component 2), by the following activities:</p> <ul style="list-style-type: none"> • Implementing advertising campaigns adapted to the social context to attract women to the job opportunities generated. • Working with local women’s groups during the recruitment process. • Delivering team building programs to facilitate adaptation and communication within the road maintenance working crews, which will help female staff retention. • Providing life skills training and coaching to empower women and enhance their professional development in the sector. This women-only specific training and coaching will help them become supervisors in the future. 	<p>- Women working in road maintenance in the Project</p> <p>Target: 10 percent</p> <p>This indicator will be tracked as part of the monitoring framework of the Project</p>
Data on traffic safety is not collected by gender	<p>3. Bridge the gap in gender data in Road Safety to better inform interventions (Component 2):</p> <p>The project will support the sex-disaggregation of data in the Road Accident Data Management System that will last the Project cycle and will provide information to design road safety action plans that consider gender differences.</p>	<p>Segregation by gender of important road sector data, notably on road safety, to inform gender specific interventions</p>



IV. PROJECT APPRAISAL SUMMARY

A. Technical and Economic Analysis

(i) Technical

62. **The project investments support works that are relatively simple to execute.** Investments under component 1 will include maintenance activities within existing rights of way, such as constructing an asphalt pavement overlay, patching potholes, sealing cracks, cleaning, and maintaining drainage systems and retaining structures, and fixing road signs. The PACT is currently financing the preparation of technical studies, notably technical and economic feasibility studies to inform the selection of the exact road sections, as well as design studies for the selected sections. The ongoing feasibility studies will segment the paved roads into homogenous sections based on the survey of road condition and the required works (heavy rehabilitation, periodic maintenance, and routine maintenance). Sections requiring periodic and routine maintenance will be selected to be financed under this Project. To prioritize the selection among sections requiring periodic and routine maintenance, an economic feasibility study will be conducted by the consulting firms using the Highway Development Model IV (HDM IV) that provides a standard cost–benefit analysis of roads investments. The results of the HDM IV study will be used in a multicriteria analysis that combines direct economic cost–benefit results (from HDM IV) as well as other socioeconomic variables (poverty and fragility) as per the Project Targeting Index (PTI) tool.¹³ This allows the selection of paved roads for periodic and routine maintenance at a national scale and in most regions of Madagascar, while balancing direct economic benefits (from heavier traffic in more peri-urban areas) with poverty and fragility considerations (lower traffic but in under-served areas). The designs will have road safety audits as well as follow the new climate resilience norms for road works. Works are expected to be in packages, mostly in the US\$5 million to US\$10 million range, to encourage the participation of local contractors, strengthen the local contracting industry, and create jobs. Technical consulting firms will be recruited to monitor the progress of works and supervise the contractors. The project will also support important technical assistance activities, such as the further development of road asset management, capacity building on performance-based contracts, and support to the implementation of the road safety action plan under development.

63. **The RA and MTPPW capacity, as well as the capacity of the local contracting industry, are being assessed to tailor the scope and design of the PBC pilots.** The RA is already preparing to introduce PBCs, for maintenance of paved roads, and has been consulting with local contractors and reviewing bidding documents. The team is working with the RA to plan and propose a pilot performance-based contract scheme comprising one or more sections of the network of roads to be identified and included in the works package under this project. Given the length of the Project, and the type of contracts (maintenance), the duration of the contract is likely to be roughly three years. The road sections to be included in the pilot PBC project will serve as a test case for the more ambitious PBC efforts envisaged through the MPA. The pilot PBC preparation will be supported by the capacity building and technical assistance program targeting government agencies (RA, MTPPW) as well as local contractors and engineering firms, as this is a critical step to ensure that the Government obtains value-for-money from private participation in the roads sector. It is envisioned that during the preparation of the pilots, several workshops and consultations will take place to ensure that both the Government and the private sector understand the requirements of bid preparation and project implementation using PBCs, in particular in terms of the change in mentality that this entails as the RA will go from managing inputs to managing outcomes. During the preparation phase, due consideration will also be accorded to definition of the key performance

¹³ PTI is a weighted composite index that prioritizes locations by combining a range of socioeconomic, human capital, and remote sensing indicators.



indicators that contractors will need to meet, issues of risk allocation and sharing between public and private stakeholders, and the legal, regulatory and institutional frameworks required to support PBCs. Technical work in support of the pilot PBC will include the development of, among others: (i) a conceptual design, (ii) financial and payment schedule models, and (iii) the development of the Form of Contract and Specifications. In addition, capacity building will be arranged in the form of specific training for the Government and the contracting community to ensure that local stakeholders understand the shift from input-driven contracting to output-based contracting.

64. **A road safety assessment has been undertaken to assess the safety risks and identify potential mitigation measures to be reflected in the works and designs.** The Road Safety Screening and Appraisal Tool (RSSAT)¹⁴ was applied to assess the road safety impact of the proposed project. The project's main intervention will focus on periodic and routine maintenance of selected national roads. These roads will generally be in the range of poor to fair to good condition and the maintenance activities to be carried out will comprise overlay placement; treatment of surface distress such as crack sealing, filling potholes and repairing damaged ancillary infrastructure such as drains, road signs, fencing and other road safety elements. Though the list of roads is yet to be finalized, a sample national road, the RN2 is used for the RSATT analysis. It is a 356 km road which was analyzed based on two sections: a rural and a peri-urban section. For the rural section and after project intervention, a Project Safety Impact (PSI) score of 0.975 was obtained, corresponding to a 2.5 percent reduction in fatalities. In the case of the peri-urban section and using a project scenario, a PSI of 0.941 was obtained, which is equivalent to a 5.9 percent decrease in fatalities compared to the current situation. These values are below the PSI threshold value of 1; this means that project interventions will not contribute to increased fatalities. At present these interventions include enhanced road safety features such as a marked paved shoulder width to cater for vulnerable road users, improved road markings and signs, expanded use of safety barriers such as guard rails, increased use of speed management or traffic calming techniques; improved signalization and pedestrian crossings, and so forth. These enhancements, in addition to recommendations arising from a road safety audit conducted during road design, will inform road safety improvements to be achieved as part of the maintenance of the selected roads.

(ii) Economic

65. **Since exact road sections will be selected during implementation, a cost-benefit analysis was conducted on a typical road section from among the national roads in Madagascar.** The project's economic benefits are from reduced travel time, vehicle operating costs, and road crashes. Increasing spending on periodic and routine maintenance will yield economic efficiencies in asset preservation and an extension of the service life of roads, hence reducing future expenditure on heavy rehabilitation works. A cost-benefit analysis was conducted on a typical section of primary roads in Madagascar similar to those intended for this project's investments using the Highway Development Model IV (HDM IV). The analysis showed an Economic Internal Rate of Return (EIRR) of 36 percent, and when extrapolated to the total project investments, a Net Present Value (NPV) of US\$482.5 million at a six percent discount rate over an appraisal period of 11 years, which represents the typical life (construction and operation) and frequency of periodic maintenance in Madagascar. A sensitivity analysis was conducted which showed that economic returns remain robust to a 30 percent decrease in traffic volumes from the base scenario (resulting in an EIRR of 16.5 percent and NPV of US\$111 million) and to a 30 percent increase in investment costs from the base scenario (resulting in an EIRR of 28.8 percent and NPV of US\$442 million).

66. **GHG accounting.** The gross estimate of GHG emissions for sections of the network that will benefit from the Project over an 11-year period is 32.6 million tonnes of CO₂ equivalent under the without-project scenario. This will drop

¹⁴ The RSSAT is a tool that assesses the road safety risks under various scenarios, with and without road projects under way, rates them using the PSI indicator, and allows for recommending select mitigation measures to further reduce road safety risks.



to 31.6 million tonnes of CO₂ equivalent under the with-project scenario, resulting in a net decrease of about 1 million-tonnes of CO₂ equivalent, or 0.08 million-tonnes of CO₂ equivalent per year. The reduction in GHG emissions can be attributed to the reduction in fuel consumption due to the slight increase in average vehicle speeds.

B. Fiduciary

(i) Financial Management

67. **Overall, the assessment of the RA's¹⁵ existing financial management (FM) arrangements that are proposed for the management of Project funds found those to be adequate, and FM residual risk was assessed as Substantial.** The FM assessment¹⁶ determined that the RA meets the minimum FM requirements, as per World Bank Policy and Directives. The RA-PIU will apply some of the existing RA FM systems. The Substantial FM risk related to the project is mainly attributed to public financial management (PFM) weaknesses, particularly in budgeting and treasury management, the nature of activities and the high level of decentralization of Project activities.

68. **To further improve the Project's FM arrangements and to further reduce the residual FM risk, the RA will (i)** establish a PIU with a qualified and experienced FM specialist to be recruited no later than three months after the project effectiveness date; and (ii) develop and adopt an FM manual of procedures, that will be part of the POM. In addition, an internal auditor for the RA-PIU will be recruited during the course of the project.

69. **For the purposes of the Project and in accordance with the applicable regulation,¹⁷ the PIU will open a Designated Account (DA) denominated in US dollars at the BFM to receive funds from the World Bank.** Secondary US dollar accounts will be opened at an acceptable commercial bank to enable payment of eligible expenditures.

(ii) Procurement

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

71. **Procurement procedures.** Procurement for the Project will be carried out in accordance with the World Bank Procurement Regulations for Investment Project Financing (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, dated October 15, 2006, and revised in January 2011, and as of July 1, 2016, will apply.

72. **The Borrower has prepared a Project Procurement Strategy for Development (PPSD) that identifies the optimum procurement strategy to meet the PDO.** The PPSD includes details on selection methods. Meanwhile, the POM will detail the procurement arrangements agreed upon with the RA that will be prepared by the client and accepted subject to the World Bank's review.

¹⁵ The Road Agency is a Public facility governed by Decree No. 2019–1279. The RA is under the authority of the Ministry of Public Works.

¹⁶ The assessment was carried out in accordance with the Directives and Policy for IPFs issued on September 30, 2018 and the World Bank Guidance on FM in World Bank IPF Operations issued on February 10, 2017.

¹⁷ Decree No. 2015–1457, amended by Decree No. 2016–1160, defining the modalities of opening, management and regularization of transactions on the Project accounts opened at the Bank.



73. **An initial 18-month Procurement Plan covering expected procurement activities under the Project components has been prepared, submitted with the PPSD and reviewed by the World Bank.** Once the Project is approved by the Board, the Procurement Plan will be published on the website of the Ministry of Economy and Finance (MEF) 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 included in the guidance note for prior reviews and issued by the World Bank.

74. **Procurement arrangements.** The RA-PIU will be responsible for project procurement under the supervision of the Director General of the Road Agency who will sign the contracts. The RA, formerly named ARM, has already managed several donor-funded projects for several years including the World Bank financed project, Emergency Infrastructure Preservation & Vulnerability Reduction Project (P132101), which satisfactorily closed in 2018. The RA is in the process of recruiting the procurement officer and procurement assistant. The Procurement team should be in place within three months from project effectiveness. During project preparation, procurement activities were funded by the ongoing PACT, and managed by the PACT-PIU, whose procurement performance has been satisfactory. **The overall project risk for procurement is rated as Substantial.**

C. Legal Operational Policies

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

D. Environmental and Social

75. **The environmental and social risk classification (ESRC) is substantial.** Risks and impacts are anticipated to result mainly from component 1 (Improving Road Condition and Resilience). Most environmental and social risks and impacts associated with the Project are limited to the construction phase. The standards that have been identified via the environmental and social risk screening at concept stage of the Project are: ESS1: Assessment and Management of Environmental and Social Risks and Impacts; ESS2: Labor and Working Conditions; ESS3: Resource Efficiency and Pollution Prevention and Management; ESS4: Community Health and Safety; ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement; ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; ESS8: Cultural Heritage; and ESS10: Stakeholder Engagement and Information Disclosure.

76. **Environmental impacts, risks, and mitigations.** The proposed project will bring significant benefits to the communities in the target regions through the maintenance of national roads and bridges. Although the impacts of the Project are likely to be positive, these activities carry several risks that are mainly generated by the activities under components 1 and 2. The maintenance of existing infrastructures of national roads and bridges in their current right of way include medium-scale civil works which will more than likely generate adverse site-specific risks and impacts, such as those related to the disposal of material excavated during civil works and rehabilitation activities, limited loss of vegetation, labor influx, labor and working conditions, especially the occupational health and safety of workers during construction and operational phases, increased levels of dust and noise and community health and safety risks including temporary traffic blockages and traffic safety in particular, the generation of solid and liquid waste, soil degradation and



erosion, and potential collisions with wildlife. Depending on the Project activities, the potential adverse risks and impacts on human populations and the environment are likely to be significant and will be site-specific. To reduce these risks and impacts according to the ESF requirements, and since the selection of national roads will be conducted during implementation, the borrower developed and disclosed, on May 26, 2021, an Environmental and Social Management Framework (ESMF), including measures to manage labor influx, Security Management procedures, a GBV action plan, and Labor Management Procedures (LMP), including the worker's Grievance Redress Mechanism as part of the LMP.

77. **Social impacts, risks, and mitigation.** It is expected that Project activities will have positive social impacts by improving connectivity that increases access to social and economic opportunities. However, the proposed Project activities to be financed through component 1 on road maintenance may include medium-scale civil works, while the development of a road safety strategy and action plan, and the training program (Component 2) will need to be adequately managed with sufficiently transparent consultations and inclusive processes to avoid the potential exclusion of some stakeholders and the risk of elite capture. The Project activities are likely to induce some adverse social risks and impacts that are, however, mostly temporary, predictable and reversible, such as incidents or accidents involving pedestrians and other road users during the works, impacts on livelihoods and increased vulnerability associated with economic or physical displacement, child and forced labor, as well as the potential for exploitation and abuse of workers. Labor influx (although expected to be minor) and the associated risks and impacts could be a point of concern, especially in terms of community health, (including the risk of transmission of diseases such as STDs, as well as the transmission and propagation of COVID-19) and GBV (more specifically or SEA/SH.). No irreversible social risks related to land access, or cultural heritage will be expected. The nature and the magnitude of displacement (economic or physical) are not yet known at this stage. No physical displacement is expected; however, there will be a risk of limited land acquisition and temporary displacement during the works. The initial GBV risk screening has classified the GBV/SEA/SH risk as moderate to substantial, which is mainly linked to labor influx in targeted regions, and has been retained as substantial to ensure proper mitigation measures. In line with the recommendation of the GBV Good Practice Note, specific GBV measures will be applied during project implementation. Measures to be taken will include, but are not limited to: (i) implementation of GBV action plan (annex 2: GBV and SEA/SH Prevention and Response Action Plan); (ii) a requirement that the Project include clauses on workers' conditions and management, child protection, and GBV prevention in all contracts (code of conduct); and (iii) the reinforcement of the GRM to ensure that any incident related to GBV will be addressed in an effective manner with sufficient social sensitivity. Insecurity in Madagascar (mainly around national roads) has increased significantly in recent years with gangs of Dahalo (cattle robbers), composed mainly of young men, clashing with local communities and police forces. Recent years have also seen the emergence of a trafficking economy centered around gemstones, gold, and cattle, accompanied by a rise in criminality and insecurity. The project will develop a Security Management procedure to ensure the security of the community benefiting from the Project, and the security of all supervision teams and support teams (PIU, Non-governmental Organization[NGO]).

78. **Strengthening citizen engagement.** In accordance with ESS10, and directives on citizen engagement (CE) in IPF projects, the Project has one citizen engagement indicator (percentage of grievances recorded and processed as per the Project's GRM). Therefore, the Project will develop and implement an adapted GRM for all project activities beyond environmental and social consideration, and in addition will implement annual beneficiary perception surveys to monitor stakeholder engagement and satisfaction with project activities. These activities are part of social activities as set out in component 2 and have also been integrated into the Stakeholder Engagement Plan (SEP).

79. **Mitigation and Risk management.** To reduce project risks, the Project has developed and disclosed on May 26, 2021: (i) a draft ESCP; (ii) a draft ESMF, including a GBV action plan; and (iii) a draft Stakeholder Engagement Plan (SEP), including a GRM as part of the SEP. The project will also develop, no later than two months after effectiveness date, a Resettlement Policy Framework (RPF), and LMP, including the worker's Grievance Mechanism as part of the LMP.



Measures to manage labor influx, traffic management plans, and a Security Management procedure, have been included in the ESMF. A full-time environmental specialist, a social specialist for the Project and a GBV specialist will be hired within three months after project effectiveness. The PACT-PIU will provide support on safeguards aspects until the RA-PIU is fully staffed. Finally, the Project would ensure that satisfactory budget is considered in the Project design.

80. **E&S monitoring.** The M&E system of the Project will include monitoring of environmental and social standards (ESS) in terms of implementation and impact. The RA-PIU as the implementing agency for the Project, with the guidance of its environmental and social specialist and with support of the World Bank safeguard team, will be responsible for the preparation of the relevant ESA documents, or other appropriate E&S tools. Monitoring checklists will be prepared based on the mitigation plans.

V. GRIEVANCE REDRESS SERVICES

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

VI. KEY RISKS

81. **The overall risk rating for the Project is "Moderate".** The most pronounced risk areas, discussed below, are: (i) macroeconomic risk; (ii) political and governance; (iii) sector strategies and policies; (iv) technical design of project; (v) institutional capacity for implementation and sustainability; (vi) fiduciary; (vii) environment and social; and (viii) stakeholder risks. The description of the risks, mitigation measures, and the residual risk rating are discussed below.

82. **Macroeconomic – Moderate:** The ongoing pandemic and its impacts will provide strong headwinds to the Malagasy economy in the short to medium term. Reduced economic returns will mean prioritizing sectors most adversely affected by the pandemic, and this may reduce the public funding envelope for road projects. To mitigate impacts on the sector, the Government of Madagascar will actively seek the support of development partners to widen the scope of funding opportunities, such as through this proposed project. In addition, the Borrower will introduce a 10 percent fuel levy, as well as dedicated taxes, to increase the resources of the Road Fund. It is important to note that investments in infrastructure are likely to stimulate local economic activity and create jobs in construction and associated services, therefore acting as a "stimulus package" for local economic activity.

83. **Political and governance – Moderate:** While the political climate since the country's last election is largely stable, Madagascar's overall road and transport sector faces significant governance challenges. Key drivers of weak governance include influential networks that shift alliances to access rents, as well as social fragmentation, growth of a trafficking economy, and a system of checks and balances that is still in its infancy. Ongoing and planned projects contain aspects



focusing on road and transport reforms with an aim to improve governance framework arrangements, using a consultative approach to build consensus amongst stakeholders on initiatives that promote transparency within the sector. Among all transport sectors (roads/rail/maritime/urban/air), roads present the least contested and contentious entry point in the transport space, with key agencies and roles and jurisdictions being relatively well defined and established. Additionally, the Project interventions aim to build institutional capacity in line ministries and implementing agencies; and through a dedicated PIU, the implementation arrangements ensure close oversight and robust ownership from the highest level of government. Therefore, given the specific focus of this project, the political and governance risks for this project are moderate.

84. Sector Strategies and Policies Risk – Moderate: Historically, transport policies and strategies lacked a well-coordinated and integrated development approach. This is further exacerbated by the presence of multiple actors with duplicated roles responsible for implementation of strategy. In the road sector, the Ministry of Public Works is finalizing its strategy “*Stratégies et Programmation des Activités 2020–2024*” with clear priorities for the road sector, while the PACT project is supporting the Government to prepare an Integrated Intermodal Transport Sector Strategy, which will be essential in streamlining strategy and policy within the sector. In addition, such risks are reduced by governmental engagement and commitment to continue supporting sector reforms through this project. The residual risk after mitigation measures is therefore moderate.

85. Technical Design of Project or Program – Low: The technical design risks associated with the Project are low. Periodic and routine maintenance works are technically straightforward, yet they may take time, awaiting the mobilization of the required consultants, which is currently ongoing. Meanwhile, most aspects of the Project follow traditional technical approaches under asset preservation and renewal, with these supported further by dedicated, qualified PIU and World Bank-sourced technical resources and global expertise. New concepts such as climate resilience works and PBC do always present elevated risks, but these are relatively easy to mitigate through the provision of targeted capacity building programs within implementing agencies.

86. Institutional Capacity for Implementation and Sustainability – Moderate: This risk reflects the institutional management challenges within the road sector and the capacity of the Project agencies to execute the Project. The Road Agency has been undergoing reforms since 2019, and its capacity is increasing as a result of several development partner-funded projects; hence it has skills and experience. The RA will be strengthened by a dedicated PIU, and will benefit from continuous technical assistance, monitoring, and support from the World Bank. It will also benefit from the support of the PIU of the PACT project that now has solid experience in the sector. The residual risk is therefore moderate.

87. Fiduciary Risk – Substantial. The Road Agency has been carefully assessed by World Bank Procurement and FM specialists to ensure that it has the capacity to handle the proposed project and assess whether the fiduciary systems and teams are in place, and acceptable to the World Bank. Based on the assessment, an action plan was developed and highlighted in the POM to further clarify the fiduciary arrangements and strengthen implementation capacity. The World Bank team is assisting the client with the preparation of the PPSD and will continue to provide training and close support during project. While proper systems will be put in place to mitigate project level fiduciary risks, the overall governance and fiduciary challenges in Madagascar will make it difficult to ring-fence the Project and fiduciary residual risk remains substantial.

88. Environmental and Social Risk – Substantial. The project is limited to medium-level works within the existing right of way. Thus, expected areas of risk include risks in terms of labor influx and working conditions, and the management capacity of environmental and social risks. To mitigate these risks, the Project has developed and disclosed: (i) a draft ESCP; (ii) a draft ESMF, including a GBV action plan; and (iii) a draft Stakeholder Engagement Plan (SEP), including a GRM



as part of the SEP. The project will also develop, no later than two months after effectiveness date, an RPF, and LMP, including the worker's Grievance Mechanism as part of the LMP. Measures to manage labor influx, and Security Management procedure will be included in the ESMF. The PIUs will also have staff trained on environmental and social aspects. Nevertheless, since this is the Road Agency's first project with the World Bank under the ESF guidelines, and since there could be potential risks associated with labor influx and GBV, the environmental and social risks are indicated as substantial to ensure proper attention and mitigation mechanisms are put in place, and could be revised during implementation once such mitigation mechanisms are satisfactorily implemented.

89. **Stakeholder Risks – Substantial.** These pertain to the existence of unmet stakeholder expectations among beneficiaries, project-affected persons and the private sector. Some of the factors contributing to the risk include lack of clarity on the expectations of the client, poor communication, and lack of upfront involvement of stakeholder groups. Fortunately, some sector institutions have been exposed to World Bank stakeholder consultations in past and ongoing projects. The project will build on the the Government's experience through these engagements to promote and support early consultations with different stakeholder groups. The Client will be required to develop a stakeholder's engagement plan, and to hold regular workshops and awareness sessions for these stakeholders prior to project commencement, and for the entire duration of the Project. Different instruments will also be used to guard stakeholder interests where applicable. The World Bank will support the Client's efforts through technical assistance.



VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Madagascar

Madagascar Road Sector Sustainability Project

Project Development Objectives(s)

To improve the longevity, safety and climate resiliency of selected paved primary roads in Madagascar.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Improved longevity of National Paved Roads							
Additional national paved roads in good or excellent condition (Percentage)		0.00	0.00	5.00	10.00	15.00	20.00
Improved Safety and Climate Resiliency of National Paved Roads							
National paved roads with safe and more climate-resilient features (Percentage)		0.00	0.00	5.00	10.00	15.00	20.00



Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Improving Road Condition and Resilience							
Maintained, climate resilient, and safer roads (Kilometers)		0.00	0.00	300.00	600.00	900.00	1,200.00
Road Safety Audits on 1200 km (Yes/No)		No	No	Yes	Yes	Yes	Yes
Technical Assistance and Support to Roads and Transport Sectors Reforms							
Lead road safety agency established (Yes/No)		No	Yes	Yes	Yes	Yes	Yes
Road Fund financing strategy adopted & implemented (Yes/No)		No	No	Yes	Yes	Yes	Yes
Transfer of full responsibility of the primary road network to Road Agency (Yes/No)		No	No	No	No	Yes	Yes
National standard bidding documents for performance-based contracts developed and implemented. (Yes/No)		No	No	Yes	Yes	Yes	Yes
National standard bidding documents for road maintenance and construction updated with new climate resilience standards (Yes/No)		No	Yes	Yes	Yes	Yes	Yes
Number of GBV and HIV/AIDS awareness-raising campaigns carried out in the project areas (Number)		0.00	0.00	5.00	10.00	15.00	20.00
Percentage of grievances recorded and processed as per		0.00	100.00	100.00	100.00	100.00	100.00



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
the project's GRM (Percentage)							
Share of construction workers that have signed the Code of Conduct (Percentage)		0.00	100.00	100.00	100.00	100.00	100.00
Study assessing barriers for women in road construction sector. (Yes/No)		No	No	Yes	Yes	Yes	Yes
Percentage of women working in road maintenance in the project. (Percentage)		0.00	10.00	10.00	10.00	10.00	10.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Additional national paved roads in good or excellent condition	The percentage of national roads that has been restored to good or excellent condition.	Annual	Supervising consultants reporting.	The value will be updated based on progress reporting from the supervising consultants who will be tasked with assessing the condition of maintained roads using either visual inspections or quantitative	PIU



				measurements of condition.	
National paved roads with safe and more climate-resilient features	Percentage of paved national roads receiving improved road safety features and maintained according to the new climate resilient road construction and maintenance norms.	Annual	Supervision Consultants	Supervision Consultants to ensure that the maintained roads follow the recommendations of the road safety audits of the designs as well as being implemented as per the climate resilience norms specified in the contractors' works bidding documents and designs.	PIU

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Maintained, climate resilient, and safer roads	The additional length of roads have received periodic or routine maintenance.	Continuous	Supervising consultants progress reporting	Evidence of handover to government through completion certificates or as-built drawings will be collected to verify maintenance work.	PIU



Road Safety Audits on 1200 km	The indicator assesses the state of road safety audits conducted through the project	Continuous	Supervising consultants progress reporting	Completed road safety audit reports will be tracked and logged as these are produced.	PIU
Lead road safety agency established	The indicator tracks whether or not a Lead Road Safety Agency has been established and is operational.	Once	Employment records and budget data for the Agency.	The data collected will be verification of the appointment of key staff in the organogram for the agency including the head of the agency, the finance officer and the heads of departments, as well as confirmation of the approved budget for the agency.	PIU
Road Fund financing strategy adopted & implemented	The indicator checks if the Road Fund financing strategy has been developed and has been adopted & implemented.	Once	Road Fund financing strategy document and government gazette or policy.	A letter of acceptance from the responsible Ministry along with a final copy of the strategy as well as a published notice of adoption by government such as a gazette will be used.	PIU
Transfer of full responsibility of the primary road network to Road Agency	The indicator tracks whether full responsibility for the primary road network has been devolved	Once	Road Agency reporting	Evidence for devolution to the Road Agency in the form of either a published proclamation	Road Agency .



	to the Roads Authority.			through government gazette or formal agreement between the Ministry and the Road Agency will be collected.	
National standard bidding documents for performance-based contracts developed and implemented.	The indicator tracks whether National standard bidding documents for performance-based contracts have been developed.	Once	Road Agency reports	The measure will include final copies of template bidding documents and evidence of the use of the document in a bidding process, such as through public advertisement.	Road Agency
National standard bidding documents for road maintenance and construction updated with new climate resilience standards	The indicator tracks whether National standard bidding documents for road maintenance and construction have been updated with new climate resilience standards.	Once	Road Agency reporting	The measure will include final copies of template standard bidding documents and evidence of the use of the document in a bidding process, such as through public advertisement.	Road Agency
Number of GBV and HIV/AIDS awareness-raising campaigns carried out in the project areas	The indicator tracks the number of GBV and HIV/AIDS awareness-raising campaigns carried out in the project areas.	Continuous	Supervising consultants progress reporting.	Data collected will include minutes or proceedings of completed workshops including attendance	PIU



				lists.	
Percentage of grievances recorded and processed as per the project's GRM	The indicator tracks the number of grievances processed through the projects GRM.	Continuous	The supervising consultants progress reporting.	The PIU will collect and maintain records of cases processed through the GRM and report these regularly.	PIU
Share of construction workers that have signed the Code of Conduct	The indicator tracks the number of workers who have signed the Code of Conducts.	Continuous	Supervising consultants progress reporting.	A register of workers who have signed the Code of Conduct will be updated by the Supervising consultants from the Contractors on an ongoing basis and shared with the PIU.	PIU
Study assessing barriers for women in road construction sector.	The indicator tracks whether a study assessing constraints for women in road construction sector, and campaigns to increase awareness and encourage women have been conducted.	Once	Project Implementation Unit's records	The Project Implementation Unit will report on progress related to the completion of the study, and final completion will be communicated through a letter of acceptance to the consultant appointed to complete the study.	PIU
Percentage of women working in road maintenance in the project.	The percentage of women working on road	Continuous	Supervising Consultants	The Supervising Consultant will be	PIU



	maintenance projects financed through the project.		Reporting of the Contractors employment records.	tasked with keeping a register of and reporting on the number of women employed by Contractors, Subcontractors as well as Consultants, and will report this to the PIU regularly.	
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ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Madagascar Madagascar Road Sector Sustainability Project

Project Institutional and Implementation Arrangements

1. **The project will be housed within and implemented by the Road Agency.** A Project Agreement (PA) will be entered into between the Road Agency and the World Bank, and a Subsidiary Agreement (SA) will be entered into between the Government and the Road Agency. The SA will govern, among other things, the financial obligations of the Government and the RA, while the PA will govern implementation arrangements between the World Bank and the RA. Both PA and SA shall be signed and sent to the World Bank before the Financing Agreement can become effective. The institutional arrangements for project preparation and implementation of its activities are as detailed below.

2. **Project Technical Committee (PTC).** A PTC will be chaired by the Director General of Public Works and will include designated technical experts from the MTPPW; the Road Fund; the Ministry of Transport; the General Directorate of Public Debt of the MEF, as detailed in POM. The PTC will ensure technical oversight and that the proposed project meets its overall objectives. The PTC will meet as frequently as may be needed. The PTC will have important responsibilities such as the review and validation of the annual work plans and budgets prepared by the RA-PIU; the confirmation of road sections' selections to be proposed for World Bank financing; the technical contribution and review of several important documents and TORs such as for the TORs for the design of roads and the TORs and technical specification of technical assistance components benefiting the respective ministries part of the PTC. The DGPW, supported by the PACT-PIU, will also provide day to day support to the RA and its PIU to benefit from the experience of the PACT, and will have joint missions to monitor and supervise the progress of Works. The PTC will participate in all project implementation missions.

3. **Project Coordinating and Implementation Unit.** The RA-PIU, which will be strengthened for project management and fiduciary aspects, will be housed in the RA under the Director General of the Road Agency and will be responsible for: (i) preparation and consolidation of work programs; (ii) implementation, contract management, coordination, and monitoring of all project-related activities; (iii) production of periodic implementation reports; (iv) maintenance of records and accounts for all transactions related to the PIU and the Project; (v) execution of the annual audit of the entire project and preparation of consolidated annual financial statements and IFRs; (vi) 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); (vii) monitoring and consolidation of the M&E criteria as agreed with the Government; (viii) procurement and FM; and (ix) preparation and organization of the PTC meetings and the required documentation for the meetings.

4. **The RA-PIU will hire a procurement specialist, Project Coordinator, social safeguards specialist, environmental specialist, GBV-SEA/SH specialist, FM officer, within three months after the Effective Date.** In addition, the RA-PIU will recruit an internal auditor, accountant, procurement officer and procurement assistant, and relevant technical specialists as detailed in the POM. The RA would associate some of its technical experts and engineers, on a part time basis, to support the RA on technical aspects. All contracts for RA-PIU staffing and



project implementation (works contractors, goods suppliers, consultants, and consulting firms) will be signed by the Director General of the RA. The national technical entities will be involved through arrangements with the RA-PIU as indicated below.

5. **The MTPPW and the PIU of the PACT will provide implementation support as needed (in particular at the beginning of the Project implementation period).** Given their solid experience with the ongoing PACT, the RA and its PIU might seek advice and support, on need basis, from the existing PACT-PIU at the MTPPW.

Financial Management

6. **FM assessment was conducted to evaluate whether the Project implementing agency responsible for FM aspects meets the minimum FM requirements as per World Bank Policy and Directive.** The FM assessment was carried out in accordance with the Directives and Policy for IPFs issued on September 30, 2018 and the World Bank Guidance on FM in World Bank IPF Operations issued on February 10, 2017. The assessment was conducted at the RA level. The RA, previously named *Autorité Routière de Madagascar* (ARM) is implementing projects financed by other donors namely the European Investment Bank and the European Union. The RA implemented the World Bank-financed Emergency Infrastructure Preservation & Vulnerability Reduction Project (P132101)¹⁸. This experience reflected a good performance of the RA on fund managing. The RA has established a comprehensive internal control over the years evidenced by the procedures' manual and regular external audit.

7. **Based on the assessment, it is considered that the Project financial management arrangements will meet the World Bank's minimum requirements under World Bank Policy and Directive and improve the residual FM risk to moderate once agreed mitigating measures are implemented.** To further strengthen the FM arrangements, a number of actions were recommended and are set out in the FM action plan below. These key actions are: (i) the establishment of the RA-PIU with qualified and experienced FM staff; (ii) the development and adoption of an FM procedures manual, that will be included in the POM, and (iii) the recruitment of an internal auditor to support the RA-PIU during the life of the Project.

8. **Budgeting and planning.** Budget arrangements will be described in the FM procedures manual to be developed as part of the POM. The RA-PIU will prepare the annual budget which will be cleared by the RA Management and approved by the Board of the RA. According to the bylaws of the RA, the Board members include representatives from the MTPPW, MoT, MoF as well as the RF. The budget monitoring will be streamlined through the accounting software used by the RA. The periodic variance analysis will enable the timely identification of deviations from the budget. These reports will be part of the interim unaudited financial reports (IFRs) that will be submitted to the Association on a quarterly basis.

9. **Staffing.** The RA-PIU will recruit qualified and experienced FM staff. Upon their recruitment the World Bank will provide training on World Bank requirements in terms of FM and disbursement.

10. Accounting and financial reporting

a. The project will use existing RA accounting software and prepare accounting reports on a modified accrual basis. The accounting system will be maintained on a modified accruals cash basis with disclosure of commitments

¹⁸ P132101 Emergency Infrastructure Preservation & Vulnerability Reduction Project – IDA Credit 51870, 102 million USD, effective in April 2013 and closed in June 2018. 52 million USD was implemented by the ARM and the remaining part of the Project were managed by PIUs.



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/IFRS. The PIU will use the existing RA accounting software to record projects financial transactions, monitor the budget execution and prepare the financial reporting. The accounting records will reflect adequately the Project's structure in terms of components and sub-components and the source of funds. To enhance its information system, the RA is currently developing an Enterprise Resource Planning (ERP). The project's financial data will be managed through the ERP once functional.

b. The RA-PIU will prepare quarterly un-audited IFRs for the Project. The format of the report will be agreed with the World Bank. These IFRs will be submitted to the World Bank within 45 days after the end of the quarter to which they relate.

c. At the end of each fiscal year, the Project will prepare annual financial statements which will be subject to an external audit.

11. Internal controls / FM procedures manual.

a. The POM was developed by the RA with the support of the World Bank and was approved by the World Bank on May 25, 2021.

b. The POM includes financial management procedures governing the budgeting, accounting, reporting, auditing, contract management, asset management as well as the flow of funds applicable to the Project. The contracts' management related to works financed by the Project will be clearly defined in the POM. The POM will also define the authorization process for payments as well as the subsequent controls to be undertaken. Procurement procedures applied by this Project will be in line with the World Bank procurement regulations.

12. Internal audit. An internal auditor department will be implemented within the RA to continuously review the governance, risk management and control over the Project's activities. During the Project implementation, the internal auditor will be required to conduct at least three reviews per year to confirm adequacy and adherence of internal controls and submit the reports to the RA Management, the RA Board, and a copy to the World Bank. In addition, the internal auditor will also support the RA developing its internal audit department.

13. External Audit: The project accounts will be audited annually. The audit report, the audited financial statements and the management letter will be submitted to the World Bank no later than six months after the end of each fiscal year. At the time of this assessment, there is no overdue audit report for the sector. The project will be audited by a private audit firm acceptable to the World Bank. The Project will comply with the World Bank disclosure policy on audit reports.

14. Flow of Funds - Disbursement arrangements.

a. The RA-PIU will open a DA denominated in US dollar at the BFM to receive funds from the World Bank, in accordance with the applicable regulation¹⁹. Funds will be disbursed by IDA to the Government, and then, in accordance with a Subsidiary Agreement (to be entered into between the Government and the Road Agency), the Government will transfer (on a non-reimbursable grant basis) the proceeds of the financing to the Road Agency.

¹⁹ Decree No. 2015-1457, amended by Decree No. 2016-1160, defining the modalities of opening, management and regularization of transactions on the Project accounts opened at the Bank.



A secondary account, denominated in Ariary or US dollars,\$, will be opened by the Road Agency at an acceptable commercial bank to enable payment of eligible expenditures.

14.b. **Transaction-based disbursements will be used for this project.** An initial advance of up to the ceiling of the DA and representing four months of forecasted project expenditures payable through the DA, will be transferred after credit effectiveness and subsequent disbursements will be made monthly against submission of the Statement of Expenditures (SOEs) or other documents as specified in the DFIL. The Project will be allowed to use direct payment, advance, reimbursement, special commitment as disbursement methods.

15. **Governance and accountability:** to prevent from possibility of corrupt practices including bribes, abuse of administrative and political positions, mis-procurement and misuse of funds, robust FM arrangements (effective internal control and IA arrangements) will be in place. In addition, the World Bank FM and procurement supervisions plan will be tailored to help mitigate this risk. The POM will clarify the World Bank directives on preventing and combating fraud and corruption in World Bank-financed projects²⁰.

16. **Supervision plan:** Based on the current overall FM risk, the Project will be supervised at least twice a year, in addition to routine desk-based reviews and FM regular meeting, to ensure that Project’s FM arrangements operate as intended and that funds are used efficiently for the intended purposes.

17. **FM Risk assessment and mitigation.** The content of these risks is described in table 1.1.

Table 1.1.FM Risk and Mitigation Matrix

Risk	Risk Rating	Risk Mitigating Measures Incorporated into Project Design	Residual Risk
Inherent risk	H		S
<i>Country level:</i> As a public entity, The RA system mirrors the Central level PFM system and its weaknesses resulting in the risk of lack of transparency and accountability in the use of public funds.	H	The country’scountry PFM systems are assessed as weak. The Government of Madagascar is committed to implement further reforms of the country’s PFM (with support from the development partners).	H
<i>Entity level:</i> FM requirements not met, weak FM capacity	S	The PIU will recruit qualified FM staff.	M
<i>Project level:</i> The resources of the Project may have been distracted due to weak control environment.	S	The PIU will comply with the internal control processes as set out in the POM once adopted.	S
Control Risk			
<i>Budgeting:</i> Weak budgetary	S	The POM will spell out the	M

²⁰ Bank Directive - Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (revised as of July 1, 2016).



Risk	Risk Rating	Risk Mitigating Measures Incorporated into Project Design	Residual Risk
execution and control leading to budgetary overruns or inappropriate use of project funds.		budgeting and budgetary control arrangements to ensure appropriate budgetary oversight. The budget follow-up will be documented in the quarterly IFR.	
<i>Accounting:</i> Reliable and accurate information not provided to inform management decision	S	The PIU will recruit qualified FM staff to ensure appropriate performance of the accounting and FM functions. They will be trained on World Bank requirements by the World Bank FM team. The financial reporting processes will be facilitated by the utilization of appropriate accounting software.	M
<i>Internal Control:</i> Business process, role and responsibilities within the Project is not clear leaving to ineffective of control. Delay in the Project implementation due to weaknesses in contract management (large contracts related to works and equipment). Loss of assets and equipment damages/default in work's contract execution	S	The POM will contain all the key internal control processes pertaining to the various project activities. The POM will establish robust contracts' management procedures (particularly on works) and asset's management. The assets safeguard across the country, property will be clearly defined in the POM. The Internal auditor will periodically review the adequacy of the internal control and the compliance in practice.	S
<i>Funds Flow:</i> Inappropriate Funds arrangements may lead to non-financing of the Project activities. Delay and misuse of funds exacerbated by the decentralization and the nature of activities to be financed Frauds and corruption on works contract.	S	The POM will clearly set the authorization process regarding payment requests as well as the subsequent controls required, particularly for requests from the regions. A robust grievance redress mechanism will be developed under this project.	M
<i>Financial Reporting:</i> The project may not be able to produce the financial reports required in a	M	The PIU will use the existing accounting software, deemed appropriate, to enable timely	M



Risk	Risk Rating	Risk Mitigating Measures Incorporated into Project Design	Residual Risk
timely manner as required for project monitoring and management		generation of financial information.	
<i>Auditing:</i> Delays in submission of audit reports. Poor quality of audit report	S	The external auditor, private audit firm, will be recruited early. The accounting software will lead to timely generation of quality reports.	M
<i>Governance and Accountability:</i> Possibility of corrupt practices including bribes, abuse of administrative and political positions, mis-procurement and misuse of funds etc., are a critical issue.	S	Robust FM arrangements, World Bank FM and procurement supervisions will be maintained. Effective internal control and internal audit arrangements will be in place.	S
Overall FM risk	S		M

18. **FM Action Plan.** The FM Action Plan described below has been developed to strengthen FM arrangements.

Table 1.2. Project FM Action Plan

Remedial action recommended	Responsible Entity	Completion date
Recruit qualified staff including one FM Officer and one Accountant.	PIU World Bank	FM Officer no later than 3 months after project effectiveness, remaining staff during the course of the project Upon recruitment
Provide appropriate training on World Bank procedures.		
Develop and adopt FM procedures manual as part of the POM	PIU	May 25, 2021
Recruit one internal auditor to support the PIU	PIU	During the course of the project
Recruit an external auditor based on TOR agreed with the World Bank	PIU	No later than 6 months after the effectiveness

Procurement

19. **Procurement assessment.** The project procurement risk is rated as substantial. The assessment was conducted at the RA level. The RA will manage the procurement needs of the new project. The RA, previously



named ARM, has already implemented the World Bank-financed Emergency Infrastructure Preservation & Vulnerability Reduction Project (P132101). This experience has been taken into account in the procurement assessment. However, this Project was closed on June 2018 and while it was governed by Procurement Guidelines, some staff have since left the RA. The current procurement assessment was based on the conditions of implementation and requirements for the application of the World Bank's new procurement framework, "Procurement Regulation for IPF borrowers." The assessment is captured in the World Bank's Procurement Risk Assessment Management System which recommends the mitigation measures to be addressed, such as (i) the elaboration of the POM which needs to satisfy the requirements for complaint management mechanism as described in the new procurement framework, and the regulations requirement in general, and (ii) the need for recruitment of proficient procurement officer and appropriate capacity building. Continuous monitoring and mitigation of any potential risk will be made possible through regular reporting on the progress and implementation of fiduciary activities, regular supervision, and further capacity-building, as necessary. Finally, the World Bank's fiduciary team will provide additional support for the implementation of the Project.

20. **Procurement under the Project will be guided by** (i) the Procurement Regulations for IPF Borrowers' dated July 1, 2016, (Procurement Regulations) and its later updates; and (ii) the World Bank's Anti-Corruption Guidelines: 'Guidelines on Preventing and Combatting Fraud and Corruption' revised as of July 1, 2016, as well as provisions stipulated in the Financing Agreement. During project implementation, the POM, including the section related to procurement, will be updated as necessary based on and in accordance with these documents.

21. **PPSD Summary:** The PPSD was elaborated during project preparation, and, with the World Bank's Bank support, its development involved the Road Agency and technical staff from the Ministry of Public Works. In consideration of the low complexity of the activities, a short form PPSD was elaborated for this project. The document includes an initial 18-month Procurement Plan covering expected procurement activities to be implemented by the Project. After the Project is approved by the World Bank Board of Executive Directors, the Procurement Plan will be published on the Ministry of Economy and Finance website and the World Bank's external website through Systematic Tracking of Exchanges in Procurement (STEP). 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 were set up in accordance with guidance provided by the World Bank's Procurement management and the level of risk set out during Capacity Assessment. Finally, the PPSD recommends International Competitive Bidding (ICB) and National Competitive Bidding (NCB) to be used with open approach for road maintenance, and, following adequate publication for the Expression of interests, the use of Quality and Cost Based Selection (QCBS) will apply for the selection of consulting firms, and the comparison of resumes and interviews for the selection of individual consultants.

22. **Procurement documentation:** Procurement will be carried out in accordance with World Bank practices as set out in the POM which will be approved by the World Bank. The following procurement, consultant and anti-corruption guidelines will apply to this project: a) 'The World Bank Procurement Regulations for IPF Borrowers' dated on July 2016 and revised on November 2017 and August 2018 (The Regulations) and b) "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006 and revised in January 2011 ("Anti-Corruption Guidelines").

23. **Use of the online system STEP:** The Implementation Agency will mandatorily use the World Bank's online procurement planning and tracking tools (STEP) for preparing, clearing, updating Procurement Plans and



conducting all procurement transactions for the Projects

24. **Procurement Action Plan.** The PR Action Plan described below has been developed to mitigate the overall procurement risks.

Table 1.3. Project Procurement Action Plan

Remedial action recommended	Responsible Entity	Completion date
Recruit qualified Procurement Officer	PIU	No later than three months after credit effectiveness
Provide appropriate training on World Bank procedures including important features of Procurement regulations for IPF Borrower and STEP	World Bank	Upon recruitment
Elaborate or Update and adopt Procurement procedures as part of the POM.	PIU	<i>Completed</i>



ANNEX 2: GBV and SEA Prevention and Response Action Plan

Action to Address SEA/SH Risks	Period	Responsible for Action
1. Sensitize all project stakeholder as to the importance of addressing SEA/SH on the Project, and the mechanisms that will be implemented.	During preparation of E&S Documents of the Project, during supervision	Task Team, PIU
2. As part of the Project’s stakeholder consultations, those affected by the Project should be properly informed of SEA/SH risks and project activities to get their feedback on project and safeguard issues.	During preparation of E&S documents of the Project	Social specialist and GBV/SEA-SH specialist and Road Agency (RA)
3. Periodic assessment of the underlying SEA/SH risks and social situation and the implementation of GBV/SEA-SH action plan	During preparation of E&S Documents of the Project, and during supervision	Social specialist and GBV/SEA-SH specialist and Road Agency (RA), Contractor for C-ESMP; and Task
4. Map out SEA/SH prevention and response actors in project adjoining communities.	During preparation of E&S documents of the Project	Social specialist, and GBV/SEA-SH specialist and Road Agency (RA)
5. Have SEA/SH risks adequately reflected in all safeguards instruments (that is, Project ESMP, C-ESMP)—particularly as part of the assessment in the ESA.	During implementation	<ul style="list-style-type: none"> • Social specialist and GBV/SEA-SH specialist and Road Agency (RA) for social assessment and ESMP. • Contractor for C-ESMP.
6. Develop a SEA/SH Action plan including the Accountability and Response Framework as part of the ESMP.	During preparation of E&S documents of the Project	<ul style="list-style-type: none"> • Social specialist and GBV/SEA-SH specialist and Road Agency (RA) for ESMP • Contractor for C-ESMP.
7. Ensure that during the implementation of Stakeholder Engagement Plan the local communities and other stakeholders are informed about the Project’s activities, to specifically address SEA/SH related issues.	During preparation of E&S documents of the Project	Social specialist and GBV/SEA-SH specialist and Road Agency (RA)
8. Make certain the availability of an effective grievance redress mechanism (GRM) with multiple channels to initiate a complaint with specific procedures for SEA/SH	During preparation of E&S documents of the Project and during implementation	Social specialist and GBV/SEA-SH specialist and Road Agency (RA)
9. Review the PIU’s capacity to prevent and respond to SEA/SH	During project supervision	Task Team
10. Ensure PIU has a GBV-SEA/SH specialist to support project implementation.	No later than three months after Effective date	Road Agency (RA)
11. For supervision have a social /environmental specialist in the supervision team with SEA/SH specific skills to supervise issues related to SEA/SH.	During supervision mission	Task team, Road Agency (RA) and the integrated PIU
12. Develop and Implement appropriate project-level activities to reduce SEA/SH risks prior to civil works (to be developed into Project manual, ESMF, ESMPs)	During implementation and based on C-ESMP developed by the Company and cleared by PIU	PIU, Contractor, Supervisor firm



Action to Address SEA/SH Risks	Period	Responsible for Action
13. Have project workers and local community undergo training on SEA and SH.	During implementation and based on Training plan developed by the Company and cleared by PIU	PIU, Contractors
14. Clearly define the SEA/SH requirements and expectations in the bid documents .	During preparation of bidding documents	Road Agency (RA) and the integrated PIU
15. Based on the Project’s needs, the Bank’s Standard Procurement Documents (SPDs), and the PIU’s policies and goals, define the requirements to be included in the bidding documents for a CoC which addresses SEA/SH .	During preparation of bidding documents	Road Agency (RA) and the integrated PIU
16. For National Competitive Bidding (NCB) procurement , consider integrating the International Competitive Bidding (ICB) SPD requirements for addressing SEA/SH risks.	During preparation of bidding documents	Road Agency (RA) and the integrated PIU
17. Ensure that procurement documents set out clearly how adequate SEA/SH costs will be paid for in the contract.	During preparation of bidding documents	Road Agency (RA) and the integrated PIU
18. Clearly explain and define the requirements of the bidders Code of Conduct to bidders before submission of the bids.	During preparation of bidding documents	Road Agency (RA) and the integrated PIU
19. Evaluate the contractor’s SEA/SH response proposal in the C-ESMP and confirm prior to finalizing the contract the contractor’s ability to meet the Project’s SEA/SH requirements	Monthly starting at least two months after the signing contract	Road Agency (RA) and the Supervisor firm
20. Review C-ESMP to verify that appropriate mitigation related to SEA-SH actions are included.	During preparation of E&S documents and during implementation	Road Agency (RA) and the Supervisor firm and Task team
21. Codes of Conduct (CoCs) signed and understood by all projects Workers (direct workers, Contracted worker, etc...)	During implementation	Road Agency (RA), Firm and the Supervisor firm
22. Funding must be available for PIU to implement GBV action plan including recruitment of SEA/SH Services Providers	During preparation of Annual Work Plan (AWP)	Road Agency (RA) and the integrated PIU
23. Undertake regular M&E of progress on SEA/SH activities, including reassessment of risks as appropriate.	Monthly starting at least two months after Effective date	PIU, Contractors



Annex 3: Adjustments to the Country Program in Response to COVID-19 in Madagascar

Impact of the COVID-19 pandemic on the country and government response

Recent developments

1. **The Trajectory of COVID-19 in Madagascar:** Madagascar registered its first case on March 22, 2020. As of April 11, 2021, a total of 28,541 cases and 506 total deaths (1.77 percent death rate); and 149,929 tests (39 percent positivity rate for April 11, 2021 on 1,229 tests) were registered. The second wave is hitting Madagascar severely as other countries in Eastern Africa and the second peak to date is approaching the first (experienced July 2020). Of grave concern has been the high increase in the rate of new positive tests (above 20 percent since mid-March 2021) and the low testing capacity overall (despite significant increase since mid-March): around 1,120 per day since April. The number of cases notified is increasing since early April 2021 (around 370 new cases per day). This increase has been linked to the relaxation of the COVID-19 preventive measures over the festive season, when people disrespected the rules on social distancing, on avoiding crowds, and on wearing masks. New measures were taken on April 3, 2021 to limit propagation of the COVID-19 (limitations of movement between regions and curfew in Antananarivo). All 22 regions in Madagascar have seen cases with most cases centered around Antananarivo city major cities. Hospital capacities are now overwhelmed in the capital city and lethality rate has increased.

2. **The COVID-19 crisis has triggered a deep recession and rising poverty.** Economic activity in Madagascar has been severely impacted by disruptions to global trade and tourism arrivals, and by domestic containment measures. As GDP contracted by an estimated -4.2 percent in 2020, similar to that observed during the 2009 constitutional crisis, the loss of jobs and income resulted in rising poverty, with informal workers and vulnerable populations in urban areas particularly impacted. While growth is expected to resume in 2021,²¹ reaching a modest 2 percent, the impact of the pandemic will cast a long shadow on economic and social prospects and could be compounded by other shocks, including natural disasters and rising social discontent.

3. **Transmission Channels:** Spillovers from the global downturn and restrictions to domestic movement affected economic activity most notably through the following channels:

- **Trade.** Global trade and travel disruptions had a severe impact on previously high-performing sectors in Madagascar. This was reflected in a sharp contraction in export revenues in mining, tourism and textiles, which were important sources of growth and formal job creation prior to the crisis. Overall, goods export values fell by 20 percent in 2020, reflecting a drop in both volume and prices amid weakening external demand. Although there were no specific limitations to air and sea cargo, supply chains and access to raw materials were disrupted, further dampening activity in trade-oriented sectors. The decline in vanilla prices combined with importers' reluctance to make longer-term commitments in this context of high uncertainty are also likely to generate a larger volume of unsold vanilla stocks. Such situation will increase the vulnerability of the less resilient rural producers.

²¹ Assuming a marked recovery in global demand during 2021 supported by the gradual deployment of effective vaccines and announcements of additional fiscal support in some countries, and a stabilization of COVID-19 cases and robust public investments in Madagascar.



• **Social distancing and travel restrictions:** Accounting together for almost 28 percent of Madagascar's economic output, the hospitality, transport, retail and real-estate sectors have felt the brunt of reduced movement, especially in urban areas, and the drop in international travel. Overall, 71 percent of surveyed companies reported a decline in the demand for their products and services in the first semester of 2020.²² SMEs that have microenterprises or households as clients have reported stronger declines in revenues than the ones trading with larger companies. In response, businesses in Madagascar have cut wages, reduced working hours and laid-off workers or in some cases have been forced to exit the market altogether. By June 2020, around 32 percent of formal companies surveyed are estimated to have closed their doors (46 percent in the tourism sector), seven percent permanently. Household surveys conducted in August 2020 indicate that 65.4 percent of respondents reported a loss of revenue since the start of the crisis.²³ Reducing food consumption was cited among the responses to lower income, thereby threatening long-term health for more vulnerable households.

4. Extreme poverty increased significantly in 2020, with vulnerable populations in urban areas particularly affected. Job losses in key manufacturing and service sectors, as well as the sudden loss of income for informal workers affected by lockdowns in major cities contributed to pushing a large number of people into extreme poverty this year. Against this background, the poverty rate (at US\$1.9/day) is estimated to rise to 79.7 percent in 2020, up from 76.5 percent in 2019. Urban populations were more immediately affected by the COVID shock, but rural households were impacted as well by contracting demand, particularly for off-farm activities. The COVID-19 crisis also coincided with severe droughts in the southern part of Madagascar, hampering livelihoods of at least 1.5 million people so far.

5. The budget deficit increased sharply in 2020 but was mostly financed by additional concessional financing. The sudden loss of fiscal revenues was a major driver of rising budget deficits in 2020, with the tax-to-GDP ratio falling back to nine percent in 2020, its lowest level since 2012. On the spending side, government expenditures increased to reach 16.5 percent of GDP in 2020, notably driven by higher staff costs as salary adjustments were implemented and there was rising public investment. Overall, the fiscal deficit is estimated to have widened to 5.2 percent of GDP in 2020. The corresponding increase in fiscal financing needs from pre-outbreak expectations was covered by emergency budget support operations from development partners. Madagascar is also participating in the G20's Debt Service Suspension Initiative, although it only stopped debt service payments to bilateral official creditors from the G20 in the course of November 2020 due to administrative delays. The suspension is effective from June 2020 to June 2021. These various support measures and interventions are expected to help create fiscal space to address the economic and social consequences of the crisis.

6. Currency pressures have been manageable and foreign exchange reserves remain adequate. Adverse impacts of lower export revenues on the trade balance were partially offset by a drop in import values, reflecting lower demand for investment goods and a sharp decline in oil prices (oil imports account for 18 percent of total imports). The current account deficit nevertheless increased to 4 percent of GDP in 2020, while foreign direct investments weakened as well. Currency pressures increased amid rising external financing needs, with the Central Bank more than doubling its net foreign exchange purchases compared with 2019. However, comfortable reserves were maintained, bolstered by emergency budget and balance of payment support operations from development partners. The Central Bank operates under a flexible exchange rate regime but aims at preserving currency stability with targeted interventions.

²² Instat (August 2020). *Impact de la Covid-19 sur les activités des entreprises.*

²³ Instat (August 2020). *Impact de la Covid-19 sur les conditions de vie des ménages. Vague 02.*



7. The financial sector has been affected by rising credit risks, but solvency remains generally sound. Prior to the crisis, all banks fulfilled the minimum capital adequacy requirement, with a capital to risk-weighted assets ratio of 13 percent on aggregate, well above a minimum of 8 percent. The impact of the pandemic has led to deterioration in liquidity and solvency indicators, particularly for microfinance institutions (MFIs), which serve most exposed sectors of society including MSMEs (medium, small and micro enterprises), informal businesses and households. MFIs experienced cash flow difficulties due to delay in loan repayment and deposit withdrawals at the beginning of the containment, though the situation has stabilized since mid-2020. The Banking sector has generally been more resilient but was also significantly affected by rising credit default rates. Proactive interventions of the Central Bank ensured the availability of adequate levels of liquidity, while banks were allowed to deduct loans to SME that have been restructured from regulatory reserve requirements. The extension of the existing Partial Portfolio Credit Guarantee Schemes for firms affected by the crisis has also helped.

Impact on Human Capital (Health and Education)

8. The COVID-19 pandemic created major challenges. Schools were closed for almost 7 months due to the containment period, affecting over 244,000 teachers and over 7 million learners including nearly 902,000 preschool children and 4.6 million elementary school students. During the school closure, 40 percent of households did not engage in any support activities for their children's education. This rises to 60 percent for the poorest quintile, which suggests that the lost schooling will most severely affect children from the most vulnerable families. School exclusion and inequality will likely be exacerbated as marginalized children, including girls and children with disabilities, are more likely to leave the schooling system permanently. Despite schools reopening since end of October 2020, Madagascar will need support to attract learners (especially adolescent girls) back to school, ensure a safe and sanitary environment in all schools, come up with remediating measures to catch up, and continue to strengthen distance learning to offer a more flexible modality for students not returning to schools that can be scalable and implemented quickly in the cases of emergency.

9. The COVID-19 outbreak has had an adverse and prolonged impact on health services' delivery and utilization, particularly Reproductive, Maternal, Child Health and Nutrition (RMCHN). Based on analysis of routine data, significant disruptions of health services utilization were observed, especially in April, May and October 2020: compared to expected levels, most RMCHN indicators show a significant drop between 7-24 percent in April 2020, between 7-17 percent in May 2020, and between 8-12 percent in October 2020. Particularly concerning is the impact of children immunization, with decreases of 20 percent for Pentavalent Vaccine (Penta)1, 23 percent for penta2 and penta3, 18 percent for Bacillus Calmette–Guérin vaccine (BCG), and 18-24 percent for polio in April 2020. An important impact of COVID-19 on the health sector has been the high rate of infection among health staff, especially in the first months of the pandemic when personal protection equipment was not sufficiently available. Overall, this translates to reduced availability of staff to deliver care, particularly in areas most hit by the pandemic putting additional burden on the health workforce, who are already overworked due to the general scarcity of health professionals, and whose levels of anxiety and fear are significant and requiring adequate measures to ensure their mental health and well-being. Other important factors explaining the reduction in the provision of other essential services on account of resources being shifted to control the pandemic and manage cases, and on limited use of services by patients who fear being infected in health facilities.

10. Urban and peri-urban populations have been particularly impacted by the COVID-19 crisis and economic lockdown. The economic consequences continue to be severe, as efforts to control the spread of the virus have limited



access to income-earning opportunities, trade activities, and markets. Households have faced reduced purchasing power as incomes decline and market prices increase for some goods. The prices of food staples in urban markets are up to 50 percent higher than the five-year average due to supply and transport restrictions.²⁴ Many of the urban poor work in the informal sector and lack protections or alternative sources of income during periods of work shortages, and nearly three-quarters of households experienced a drop in business income in June 2020.²⁵ Resilience capacity is low, and many poor households have resorted to negative coping strategies including reduction of food and non-food expenditures and selling assets to cope with the lockdown.²⁶

11. The economic downturn due to the COVID-19 crisis, compounded by recurring natural disasters and chronic poverty, continues to threaten Madagascar's economic development and long-term stability. The impacts of the crisis could reverse past progress in poverty reduction and deepen fragility. Prior to the current crisis, Madagascar was one of the poorest countries in the world and lagged on human capital indicators²⁷, including high rates of malnutrition, stunting, and children out of school. The coronavirus outbreak has intensified these challenges while pushing urban populations and notably women and youth, into positions of greater vulnerability due to strict confinement measures. Declining income per capita and rising inequality could sharpen the risk of social unrest, while the fiscal shock would also be heightened. Impacts of the current crisis on both poverty and stability could be compounded by further shocks, particularly from natural disasters.

12. Women and girls in Madagascar were already limited in reaching their full potential, particularly in the areas of human capital, empowerment, and labor participation, before the pandemic. There is strong evidence to suggest that women and girls in Madagascar will suffer from extreme and multifaceted negative secondary impacts as a result of the COVID-19 crisis, including higher poverty rates, increases in unplanned pregnancies, a surge in school dropout rates, loss of income and reduced financial empowerment, increased household work, reduced access to health care and Water Sanitation and Hygiene (WASH) alongside increased maternal deaths, and greater food insecurity and malnutrition. Rates of early marriage among girls under 18 in Madagascar were already among the highest in the world, and as of 2018, 40 percent of girls under 18 were found to be in marital unions.²⁸ Gender-based violence (GBV) is high, particularly in urban areas. Women are more likely to be excluded from financial services altogether, but in general rely more on informal financial services as compared to men.²⁹ These trends have made women even more vulnerable to income loss and exclusion due to the economic lockdown during the COVID-19 crisis.³⁰ Illiteracy rates among women are high, at 38.4 percent, compared to 34.2 percent of men.³¹ These effects are compounded by restricted access to and use of productive and informational resources, as men are more likely to own cellular phones and have greater exposure to media and the internet³².

²⁴ FEWS NET Key Message Update for Madagascar, July 2020.

²⁵ High Frequency Phone Survey results for Madagascar, June 2020. World Bank Group.

²⁶ FEWS NET Key Message Update for Madagascar, July 2020.

²⁷ As of October 2020, Madagascar has a Human Capital Index of 0.39, reflecting that a child born in Madagascar today will be 39 percent as productive when she grows up as she could be if she enjoyed complete education and full health.

²⁸ INSTAT-UNICEF, *Madagascar Enquête par grappes à indicateurs multiples* (MICS), 2018 (Madagascar Multiple Indicator Cluster Survey)

²⁹<http://documents1.worldbank.org/curated/en/789051532448517077/pdf/128782-REPLACEMENT-Digital-MEU-Fostering-Financial-Inclusion.pdf>

³⁰ ONEF. 2017. *Les Femmes dans la Vie Active et dans les sphères Décisionnelles* (Women in Active Life and in Decision-Making Spheres)

³¹ INSTAT-UNICEF, *Madagascar Enquête par grappes à indicateurs multiples* (MICS), 2018 (Madagascar Multiple Indicator Cluster Survey)

³² High Frequency Phone Survey results for Madagascar, June 2020. World Bank Group.



Outlook and debt sustainability

13. Growth in Madagascar is projected to recover in 2021-23, but at a gradual pace and will continue to face underlying constraints. The global economic impact of the pandemic will persist in 2021 but assuming that new policy restrictions are able to contain community spread, and vaccination campaign accelerate, global growth and trade are expected to pick up in the course of the year. As global demand picks up in 2021, export and investments in Madagascar should regain some strength. However, the recession will leave a long shadow for businesses and households. In this context, growth is expected to remain subdued in 2021, at around 2 percent, which is insufficient to increase average income per capita levels. Overall, the crisis is estimated to have shaved over a two-year period about 13 percent to average income per capita when compared with pre-crisis expectations. In the baseline scenario, growth would bounce back to 5.8 percent in 2022 and stabilize at 5.4 percent in 2023-24, but the crisis will likely exacerbate constraints to growth associated with a lack of adequate infrastructure and human capital, poor governance, and limited capacity to respond to shocks.

14. The poverty rate should resume its downward trend over the medium term. A gradual economic recovery should allow poverty rates to return to a declining trend from 2022 onwards, but the crisis is estimated to have set the country back by a decade in its effort to alleviate extreme poverty, which remains among the highest in Sub-Saharan Africa. Over the medium to long term, the pace of poverty reduction will largely depend on the country's ability to facilitate formal job creation in off-farm employment, improve agricultural productivity and resilience to climate and other shocks.

15. Debt sustainability risks have increased but remain moderate. The projected economic recovery in 2022-24 should result in gradually declining budget deficits, from an estimated 5.2 percent of GDP in 2020 to 3.2 percent in 2024. The main driver of this decline will be a recovery in government revenues, offsetting accelerating public investments, particularly in infrastructure. In this context, public debt is projected to stabilize around 52 percent of GDP in 2024, following a sharp increase in 2020 and 2021. External debt distress risks have increased in recent months from low to moderate, but baseline projections for key external debt and debt service ratios remain well clear of risk thresholds considered for Madagascar. This was confirmed by a joint International Monetary Fund-World Bank Debt Sustainability Assessment in March 2021 as part of the preparation of the new International Monetary Fund Extended Credit Facility program, although pointing that additional export or growth shocks could generate liquidity problems unless mitigated by additional revenue mobilization and continued reliance on concessional financing. The assessment takes into account the authorities' participation in the G20's Debt Service Suspension Initiative. The current debt risk profile for Madagascar still makes plans to scale up priority investments appropriate but calls for prudent borrowing policies and fast-track reforms to boost revenue mobilization and public spending efficiency. Impacts of the current crisis could be compounded by further shocks, particularly from natural disasters or periods of social or political unrest.³³

Financing needs

16. A Multisectoral Emergency Plan was adopted in July 2020 under the Prime Minister's office. The plan aims to (i) control the spread of the virus and stem the pandemic; (ii) help vulnerable populations and respond effectively to their needs; and (iii) protect the economy, maintain human capital, and facilitate the recovery. The plan is funded by the state budget and the donor community, building on emergency responses in health and social protection. As of February, 15 2021, the financing gap of the Prime Minister's Delivery Unit is estimated at US\$ 107 million (out of US\$ 826.1 million



for the overall budget, 536.4 million excluding infrastructure), of which 36 million for health sector spending, 28 million in agriculture, 12 million in water and sanitation, 11 million in nutrition, and 11 million in transport.

Government response

17. The authorities acted promptly by declaring a State of Emergency on March 21, 2020 including closing schools, suspending events, limiting inter-regional traffic, closing borders, and limiting activity of private companies and public institutions. A multitask Operations Command Center led by the Ministry of Interior and Decentralization was also set up to coordinate the Government response. Measures to enhance resilience to shocks were and are being implemented through the preparation of a health security plan to respond effectively to future epidemics and progress toward the operationalization of the National Disaster Fund.

18. More specifically, lockdown measures were put in place on March 22, 2020 for the four most affected regions including Antananarivo, Toamasina, Fianarantsoa and Alaotra Mangoro. The State of Emergency was extended fourteen times until October 3, 2020. Lockdown measures were loosened up from end of May till end of June 2020. Following these release measures, there was a resurgence of cases of COVID-19 on July 6, 2020 for a period of one month and subsequently the authorities imposed a second lockdown in the capital of Antananarivo. On August 9, 2020, the authorities, judging that the peak of the epidemic had been reached, decided to start re-opening gradually. Although the State of Emergency and curfews were sustained, government offices, private and public companies were allowed to resume gradually. Schools were allowed to carry out official examinations since September onwards. On October 18 2020, the Government decided to lift the State of Emergency. Wearing of masks in public remains mandatory, and most businesses and offices have implemented measures such as providing hand sanitizer and temperature screening. Restaurants, bars, beaches, parks, and public transportation are also open. However, borders are still closed, and international traffic is still suspended with the exception of repatriation of Malagasy and residents.

Government Measures to Support Households and Firms during the COVID-19 Crisis

19. An expansion of social protection programs is underway to support the livelihoods of the most vulnerable amongst the population. This includes a significant expansion in urban areas where social distancing measures are having the largest impact on incomes. Overall, the number of beneficiaries of social safety nets is set to increase from 2.5 million currently to 3.9 million people. Innovations in the targeting program are being introduced to rapidly identify beneficiaries through spatial poverty mapping and to expedite access to transfers by using mobile money transfers.

20. The Government's response also seeks to safeguard livelihoods by providing support to SMEs and to ensure that the banking sector has sufficient liquidity to support the private sector.

21. A set of fiscal measures have been implemented to support firms, including:

- Temporary suspension of payment of installments and postponement of payment declarations for firms operating in the tourism and transport sectors and enterprises operating under free processing zones.
- Temporary deferral of payment of income tax.
- Temporary deferral of declarations and payment of the synthetic tax.
- Temporary suspension of tax audits and notices to third-party holders.
- Authorization to repatriate currencies up to 80 percent without penalty.
- Use of amicable payment conditions for social security contributions due for the first and second quarters of 2020.



22. In addition, the Multisectoral Emergency Plan envisages to support firms through:

- the provision of training to 200,000 formal employees.
- support for intercompany medical services to ensure the continuity of care services for employees, and to advise and train companies to better protect employees in the workplace.
- subsidized loans to support the cash flow of 20,000 entrepreneurs and MSMEs.
- communication and promotion actions to develop national and international markets.

23. Health and sanitation measures include in particular:

- Simplification of import procedures for medicines and medical equipment.
- Increased surveillance, testing and case management capacity, including infection prevention and control measures in health facilities and laboratories.
- Initiation of protocol development for continuity of essential services.
- Public communication campaign for prevention and test/detection updates.

24. Social Protection measures include:

- Expansion of the number of beneficiaries of social protection programs from 2,500,000 to 3,900,000 households.
- Simplifying ID requirements for mobile money transfers to social protection beneficiaries.
- Monitoring of market prices to curb opportunistic pricing.

25. **Measures to support the financial sector.** To alleviate pressure on SMEs and household cash flows, banks and microfinance institutions were encouraged to reschedule loan repayments for three months, and banks were allowed to deduct a similar amount from their reserve requirements. Exceptional liquidity has also been provided to the financial system, conditioned on an increase in credit to companies. The Central Bank kept an accommodative monetary policy stance throughout 2020 and 2021. The monetary policy response to the crisis has consisted of providing liquidity to commercial banks and the relaxation of some mandatory deposit limits to encourage banks to reschedule repayment on existing loans and boost credit to corporates. The Central Bank also implemented targeted foreign exchange interventions to alleviate currency pressures while maintaining ample reserves.

World Bank Support for responding to the crisis

26. **The World Bank has adjusted its Country Partnership Framework in response to COVID-19.** The significant impacts of the pandemic on Madagascar have had a major impact on Madagascar's development financing needs over the next two years requiring adjustments to the WBG country program.

27. **World Bank support under the Relief Phase has required an additional US\$351.76 million in IDA and non-IDA financing that was not anticipated under the CPF in FY21.** In addition to the COVID Emergency DPO (US\$75 million), an additional financing to the Improving Nutrition Outcomes Project Using the Multiphase Programmatic Approach (P174669) (US\$1.76 million), an additional financing to the Madagascar Basic Education Support Project/Emergency project of the GPE (P160442) (US\$15 million) and the Support to COVID-19 vaccine purchase and health system strengthening (P174635) (US\$100 million) are all new interventions not envisaged in the CPF. This phase of the response mobilizes resources from within the portfolio through activation of CERC and restructuring and scaling up of existing



programs. The World Bank has allocated US\$169 million to support the Government's health, social, education, water and sanitation plans, and leveraged an additional US\$ 123 million to finance the Multisectoral Emergency Plan through other CERCs. Support to the agricultural sector, including the rice sub-sector, will be provided through an IPF which will finance measures to increase agricultural productivity and food security. Most project resources reallocated and mobilized for pandemic response through activation of CERC components have been replenished through additional financing operations during FY21. The Least-Cost Electricity Access Development Project (P163870) will support the electrification of approximately 500 of the 1,250 public Health centers that remain unelectrified. The lack of well-equipped rural health centers is a major challenge for public health in Madagascar. It disproportionately affects rural areas, the poor, and female-headed households. By electrifying 500 rural health centers (40 percent of unelectrified Basic Health Centers [*Centre de Santé de Base*, CSB] II) across the country, mostly through off-grid technologies, —the Project will directly contribute to increasing the types and quality of health services available to the most vulnerable parts of the population. The project will enable lighting, refrigeration, sterilization, and other services that can significantly improve the quality of rural health care provision. The first phase with 50 Health centers is ongoing and works are expected to be completed by the end of 2021. This is further detailed in table 3.1.

28. The Restructuring Phase is supported by new activities in education, pandemic preparedness, urban and rural resilience, and digitalization. The Global Partnership for Education (GPE) is providing an additional US\$32 million in financing for the Basic Education Project in order to ensure educational continuity at home during the pandemic-induced confinement period, prepare for reopening of post-containment classes and strengthen the resilience of the system in the face of shocks, including natural disasters or health crisis. A new Pandemic preparedness and basic health services delivery Project (P174903) US\$150 million including US\$19 million from the Global Financing Facility, will support the Government's efforts to implement the recommendations of a recent assessment of the country global health security systems and further reinforce the country's capacity to respond to future pandemics of COVID-19 magnitude. The new Resilient Livelihoods in the South of Madagascar project (MIONJO) (P171056) US\$100 million notably seeks to improve access to basic infrastructure and safe water, support livelihood opportunities and strengthen local governance in southern Madagascar with a primary focus on youth and women. The COVID-19 crisis has strengthened the role of WASH services to prevent the spread diseases and support livelihoods. Building on a strong track record in social protection, a social protection project has been brought forward from FY23 to help build resilience to future shocks. These three new operations responding to the pandemic were not envisioned in the CPF program. An AF to the Integrated Urban Development and Resilience project (P175087) US\$50 million, will enhance urban living conditions and flood resilience in selected low-income neighborhoods of Greater Antananarivo; and to improve the Recipient's capacity. The Digital Governance and Identification Management System Project (PRODIGY) (P169413) US\$140 million is a CPF operation that was adjusted to new circumstances. Altogether, this Phase of the response adds US\$300 million in financing that was not anticipated in the CPF while US\$345 million is as planned in the CPF.

29. The Resilient Recovery Stage is geared towards reinforcing infrastructure and private sector development. Of the US\$1.1 billion in IDA Financing earmarked towards the recovery phase, US\$1 billion are operations that will be delivered as planned with adjustment in design to increase resilience and take advantage of new opportunities to ensure a more sustainable, inclusive and resilient future in a world transformed by the pandemic. In addition, the AF to the Madagascar Integrated Growth Poles and Corridor SOP-2 Project (P175172), US\$33 million, is part of a strongly complementary approach whereby the ongoing Madagascar Integrated Growth Poles and Corridor SOP-2 Project (P164536) is being restructured to scale-up immediate support to the private sector during the COVID-19 crisis, with additional funds from the portfolio-level CERC. The here proposed Economic Transformation for Inclusive Growth



Project (P174241) US\$150 million will provide significant support for the subsequent economic recovery, with an expanded sector and geographical coverage, and a focus on economic transformation including through digital entrepreneurship. Infrastructure related projects, a key pillar of the economic recovery, have been postponed until FY22 to accommodate the program changes outlined above.

30. In line with the World Bank Group COVID-19 Crisis Response Approach Paper from June 2020, resources have been realigned to support priority actions around the following four pillars (i) saving life, (ii) protecting poor and vulnerable people, (iii) ensuring sustainable Business growth and job creation; and (iv) Strengthening Policies, Institutions and Investments for Rebuilding

31. Program adjustments include: (i) reallocation of portfolio resources through activation of CERC and restructuring and reallocations of existing programs; (ii) developing new operations responding to the pandemic that were not envisioned in the original CPF program (e.g. Pandemics preparedness program); and (iii) reprioritization of the CPF pipeline to advance operations that were planned for later years (from FY22/23 to FY21), while delaying selected new operations in infrastructure.

Table 3.1. World Bank COVID-19 Support

Areas of Intervention	IDA Amount Cost (US\$, millions)	Co-financing	Delivery
Pillar 1: Saving Lives			
CERC/AF of Improving Nutrition Outcomes Project Using the Multiphase Programmatic Approach (P174669)	20		Delivered FY20
Support to COVID-19 vaccine purchase and health system strengthening project (P174635)	100		FY21 Q4
Madagascar COVID-19 Response DPO (P1743880)	75		Delivered FY21
Pillar 2: Protecting Poor and Vulnerable People			
Restructuring/reallocation of Madagascar Social Safety Net Project (P174886)	10		Delivered _FY20
Restructuring/reallocation of Financial inclusion project (P161491)	6		
AF Madagascar Basic Education Support Project/Emergency project of the GPE (P160442)		15	Delivered FY21
Second AF Improving Nutrition Outcomes Project Using the Multiphase Programmatic Approach of Nutrition MPA (P174669)- PEF facility (TF)	1.76		Delivered FY21
AF COVID response under Madagascar Social Safety Net Project (P174886) (Adj. to pipeline advanced from FY23 to FY21)	150		Delivered FY21
Support for resilient livelihoods in the South of Madagascar (MIONNJO) (P171056)	100.0		Delivered FY21
AF Madagascar Basic Education Support Project/GPE (P160442)	32.0		Delivered FY21
Phase 2 AF Improving Nutrition Outcomes Project Using the Multiphase Programmatic Approach of Nutrition MPA (P175110)	150		FY22 Q3
Girls Empowerment and Human Capital Development in Madagascar (P176393)	150		FY23 Q1
Madagascar DRM and Resilience Project	150		FY23, Q2
Agriculture Productivity Program (P175269)	150		FY22, Q2
Madagascar National Water Project (P174477)	150		FY22, Q2
Pillar 3: Ensuring Sustainable Business Growth and Job Creation			



Areas of Intervention	IDA Amount Cost (US\$, millions)	Co-financing	Delivery
Integrated Growth Poles and Corridor SOP2 - AF (P175172) (adjusted pipeline advanced from FY23)	33		Delivered - FY21
Integrated Urban Development and Resilience Project for Greater Antananarivo - AF (P175087)	50		Delivered – FY21
Madagascar Economic Transformation for Inclusive Growth (P174684)	150		FY21 Q4
Madagascar Road Sector Sustainability Project (P174378)	200		FY22, Q4
Pillar 4: Strengthening Policies, Institutions and Investments for Rebuilding Better			
Reallocation Urban Development and Resilience Project for Greater Antananarivo (P175087)	1		Delivered -FY21
Integrated Urban Development and Resilience Project for Greater Antananarivo - AF (P175087)	50		Delivered -FY21
Madagascar Covid-19 Response DPO(P174388) (P174388)	75		Delivered - FY21
Digital Governance and Identification Management System Project- PRODIGY (P169413)		140.0	Delivered - FY21
Investing in Human Capital Development Policy Financing (P1743880)	150.0		Delivered FY21
Regional Statistics Project (P code tbd)	25		FY22 Q3
DPO series on fiscal management	150		FY23 Q1
Investing in Human Capital Development Policy Financing II (P171460)	150.0		FY22 Q2
Connectivity for Rural Livelihood Multiphase Programmatic Approach (MPA)	400		FY22 Q4
Digital Madagascar Project (P code tbd)	150		FY23, Q2
Madagascar Governance Decentralization (P code tbd)	150		FY23, Q2

Selectivity, Complementarity, Partnerships

32. The overall World Bank Group response is aligned with the Government’s Multisectoral Emergency Plan as well as the activities of other development partners. The World Bank is playing a critical role to further strengthen development partner response. These efforts have paid off, resulting in a coordinated response on budget support measures. Similar efforts were carried out to rally development partners around the response on health, social protection and private sector which are financed through a coalition of development partners and leveraging the donor coordination platforms. The Multisectoral Emergency Plan has served as a platform for identifying priority needs and coordinating donor support.

33. Other donors committed significant resources to support the Government’s emergency response. Major bilateral donors included China, France, Norway amongst others, while multilateral donors included World Health Organization (WHO), United Nations Development Programme, AfDB and the EU. Among the largest, donors, the AfDB committed a total of US\$61 million through the Special Relief Fund, the African Development Fund and the Transition Support Facility, while the European Union has allocated €24 million (US\$28.5 million) in funding for health, social, and tourism, activities, while other donors committed a combined US\$129.5 million in additional funding.

34. The World Bank COVID-19 response is closely coordinated with the IFC response. In line with the Approach paper, IFC’s strategy supports the country COVID response through (i) emergency help focusing on agriculture for livelihoods and jobs, light manufacturing for health response, and financial sector support; (ii) help on restructuring



through assistance to the financial sector, corporates and key sectors, and advisory to government on private sector support; and through (iii) recovery, where IFC will help mobilize private investment by supporting the expansion of access to power, the development of sustainable railroad and port infrastructure, by helping to build competitive global value chains, and by leveraging digital platforms to support smallholder farmers and MSMEs. IFC has continued disbursing in the agribusiness sector (US\$3.3 million) in support of small holder farmers and has been deploying its available SME risk sharing facility (US\$6 million) with a systemic bank as a crisis response. It is also in negotiation with a systemic bank for a medium-term loan (US\$10 million). Furthermore, IFC is at different stages of discussing new financing and early disbursements for clients in the agriculture and financial sectors (for a total amount of US\$19.3 million).

35. Further adjustments to the country program in response to heightened fragility risks are also planned. Beyond the regular IDA envelope for Madagascar, additional resources will be available through the Scale Up facility, which is particularly adequate for infrastructure projects, and regional integration programs, including for DRM and women empowerment, the new IDA 19 Crisis Response Window Early Response Financing that will address food security challenges in the South of Madagascar. From an operational viewpoint, procurement compliance and client's ownership during project preparation is key, emphasizing the need for continued training of civil servants, more effective use of PPA and propagation of best practices on implementation of operational procedures. Any bottlenecks should be addressed to maintain the Country's fast delivery.