



# Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 30-Aug-2022 | Report No: PIDA34498



**BASIC INFORMATION**

**A. Basic Project Data**

Country Madagascar	Project ID P178924	Project Name Additional Financing to the Madagascar Road Sector Sustainability Project	Parent Project ID (if any) P176811
Parent Project Name Madagascar Road Sector Sustainability Project	Region EASTERN AND SOUTHERN AFRICA	Estimated Appraisal Date 22-Aug-2022	Estimated Board Date 30-Sep-2022
Practice Area (Lead) Transport	Financing Instrument Investment Project Financing	Borrower(s) Republic of Madagascar	Implementing Agency Ministry of Public Works, Road Agency

Proposed Development Objective(s) Parent

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

Proposed Development Objective(s) Additional Financing

improve the longevity safety and climate resiliency of selected paved primary roads, and support emergency recovery of selected main infrastructure in Madagascar.

Components

Improving Road Condition and Resilience  
Technical Assistance and Support to Roads and Transport Sector Reforms  
Contingency Emergency Response Component

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

**SUMMARY**

<b>Total Project Cost</b>	100.00
<b>Total Financing</b>	100.00
<b>of which IBRD/IDA</b>	100.00
<b>Financing Gap</b>	0.00

**DETAILS**



**World Bank Group Financing**

International Development Association (IDA)	100.00
IDA Credit	100.00

Environmental and Social Risk Classification

Substantial

Other Decision (as needed)

**B. Introduction and Context**

1. **The COVID-19 pandemic led to the sharpest recession in Madagascar in two decades.** The initial impact of the crisis induced by COVID-19 has been severe, with the collapse of export revenues and private investment resulting in a GDP contraction of 7.2 percent in 2020, the sharpest recession in over two decades and a significantly larger drop than observed among peer countries and across Sub-Saharan Africa. A second wave of the pandemic in 2021 and continued closure of international borders have further delayed the recovery, with growth estimated to have reached a modest 1.8 percent in 2021, remaining insufficient to prevent a second consecutive year of falling GDP per capita. The extractive, tourism, textile and transport sectors were those most impacted by the crisis, while domestic-oriented sectors were dragged down by declining income per capita and supply chain disruptions. On the positive side, fiscal policy was able to play a stabilizing role during the recession as the government’s access to concessional lending allowed it to ramp up public spending, in sharp contrast with previous crisis episodes.

2. **The pandemic has likely reversed more than a decade of gains in poverty reduction.** The share of the population in extreme poverty is estimated to have risen to 80.7 percent in 2020, up from 76.5 percent in 2019, implying that an additional 2.4 million people now live below the international poverty line of US\$1.90/capita/day (in 2011 Power Purchasing Parity), primarily because of the pandemic. These impacts reflect job losses during the recession, which were particularly severe in transport, tourism, and trade, and declining incomes more generally. With two-thirds of the population living in rural areas, Madagascar remains primarily a rural country. Rural and remote areas are lagging in terms of economic opportunities: the rural population is primarily engaged in subsistence agriculture, remains disconnected from the country’s economic growth and are highly vulnerable to the effects of climate change.

3. **Madagascar is highly exposed to cyclones, extreme rainfall and flooding that may have become even more frequent because of global climate change.** Madagascar is the world’s fourth largest island and home to a diverse and unique range of species and ecosystems, many of them vulnerable to current and future climate patterns. These events are becoming increasingly frequent and intense: in the past 20 years Madagascar has been struck by 35 cyclones, 8 floods and 5 periods of severe droughts (a three-fold increase over the previous 20 years), causing \$1 billion in damages and affecting food security, drinking water supply and irrigation, public health systems, environmental management, and quality of life.



4. **Although it is the typhoon season for Indian Ocean, it is rare for four storms (Ana, Batsirai, Dumako and Emnati) to hit Madagascar in span of four weeks during Jan 22 – Feb 23, 2022.** Local populations, business, infrastructure, and public services are severely impacted across the country. The World Bank conducted a Global Rapid Damage Estimation (GRADE) which estimated that the cyclones have displaced around 455,000 people, partially or fully destroyed 56,000 houses, destroyed 10,800 classrooms affecting 349,000 students, damaged more than hundred health facilities, and flooded 212,000 ha of agricultural land. The GRADE analysis estimates the direct damages and losses amount to around US\$658 million, distributed across residential buildings (20%), non-residential buildings (12%), infrastructure (26%) and agriculture (42%). The total losses are equivalent to 4.8% of Madagascar's national GDP (2020). While the World Bank's assessment is based on most urgent needs, the government's assessment reflecting both short term and medium-term needs, is slightly larger at about US\$878 million, of which the needs from infrastructure sector are among the largest.

5. **Before cyclones the country already suffered from a lack infrastructure and connectivity, and the extreme weather has worsened the situations.** Despite being the backbone of Madagascar transport sector, Madagascar roads remain largely undeveloped with a road density of 5.4 km per 100 km<sup>2</sup> 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). The Rural Accessibility Index (RAI), measured by the share of the rural population who live within 2 km of an all-season road is 11.4 percent (among the lowest globally), which means that 17 million rural residents are left unconnected.<sup>1</sup> Madagascar has a rail network of 845 km of metric gauge, with a degraded quality of its infrastructure, of which about 670 km are operated by Madarail. Meanwhile, only about 33.7 percent (15percent on grid) of the population have access to electricity, compared with an average 48.4 percent for Sub-Saharan Africa in 2020, which places the country in the list of the top 13 access-deficit countries in the world. Mainly, public electricity service in Madagascar is provided by JIRAMA, a vertically integrated state-owned utility that operates most of the country's grid infrastructure. JIRAMA manages about 6,752km of networks (HV, MV, and LV) but has difficulty ensuring their maintenance and reinforcement.

6. **Adapting infrastructure design and maintenance to intense rainfall, and building it back better, is critical for Madagascar's connectivity.** 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. Because the Madagascar road and transport network has low redundancy, disruptions due weather extremes often isolate communities for extended periods of time and thus have a significant detrimental impact on local economies.

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<sup>1</sup> Madagascar: Spatial Analysis of Transport Connectivity and Growth Potential. June 2018.

<sup>2</sup> [https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS?end=2020&most\\_recent\\_value\\_desc=false&start=1996&view=chart](https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS?end=2020&most_recent_value_desc=false&start=1996&view=chart)



7. **This proposed Additional Financing (AF) will support a full replenishment of the financing gap in the Road Sector Sustainability Project (RSSP) project caused by the activation of the Contingency Emergency Response Component (CERC) at the request of the Government to mitigate the impacts of the cyclones.** The original RSSP was approved on June 29, 2021 in the amount of US\$ 200 million and became effective on November 17, 2021. The Project's Development Objective (PDO) of the original project is to improve the longevity, safety and climate resiliency of selected paved primary roads in Madagascar. The CERC was activated and through which US\$100 million were reallocated to address immediate emergency activities to restore basic infrastructures in roads, railways, and electricity, damaged by Cyclones in early 2022.

### **C. Proposed Development Objective(s)**

#### Original PDO

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

#### Current PDO

The PDO will be expanded to include post-disaster recovery on railways and electricity infrastructure, introduced by the CERC activities. The new PDO will be to **“improve the longevity safety and climate resiliency of selected paved primary roads, and support emergency recovery of selected main infrastructure in Madagascar”**.



Key Results

8. The Results Framework and monitoring indicators are proposed to be revised to reflect the CERC. The newly introduced CERC PDO indicator and CERC intermediate indicator, in addition to those as per the original project, are shown in the table below as follows:

New Indicators	Baseline	Targets/Actual	Data Source
<b>PDO indicators:</b> Main infrastructure restored to good <sup>3</sup> condition following national emergency (number)	0	8	PACT PIU Database/Supervision Consultants Reports
<b>Intermediate indicators:</b> km of cyclone damaged main roads restored	0	210	PACT PIU Database/Supervision Consultants Reports
<b>Intermediate indicators:</b> number of cyclone damaged railway bridges restored	0	2	PACT PIU Database/Supervision Consultants Reports
<b>Intermediate indicators:</b> km of cyclone damaged electricity distribution lines restored	0	700	PACT PIU Database/Supervision Consultants Reports
<b>Intermediate indicators:</b> Number of cyclone damaged electricity poles replaced	0	32,000	PACT PIU Database/Supervision Consultants Reports

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<sup>3</sup> There are established technical criteria to measure infrastructure quality that ranges from the use of sophisticated machinery and equipment for accurate measurements, to the use of established guidelines relying on visual surveys and experts assessment for faster and lower cost surveys. We will be relying on established visual survey guidelines for the assessment of the quality of the infrastructure.



#### D. Project Description

9. **The proposed AF would support a full replenishment of the financing gap that resulted from triggering the CERC, thereby enabling completion of key planned project activities and achievement of the Project's objectives.** The proposed additional financing will: (i) cover the financing gap to replenish the amount that will be reallocated towards the CERC (US\$100 million); and (ii) restructure the project by extending the project closing date by one year to account for time diverted for the post emergency recovery via the CERC, (iii) introduce changes to the PDO and results framework related to the CERC activities, and (iv) clarify changes to institutional arrangements following the activation of the CERC. Through the AF, US\$ 100 million will be added to Components 1 and 2 of the project to fully replenish the funds transferred out of this category to finance the CERC component. No changes are being made to the technical design and content of components 1 and 2 of the original project, while the CERC activities under component 3 are defined below. Table 1 below provides a summary of the allocation of project funds per component.

10. **Proposed Project Components of the RSSP Project once the AF is approved:**

11. **Component 1. Improving Road Condition and Resilience (US\$180 million equivalent):** This component will finance works and consultancy services to support periodic and routine maintenance on about 1,200 km (representing 20 percent) of national paved primary roads in different regions of Madagascar.

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

13. **Component 3 Contingency Emergency Response Component (US\$100 million equivalent)** The following activities are being financed under the activated CERC of the original project:

**Sub-Component 3.1 Road and Rail infrastructure (US\$80 million).** This subcomponent will finance consultancy services, equipment, and works for the emergency reconstruction needs of roads, bridges, and associated infrastructure (US\$78 million) as well as for railways operated (US\$2 million).

**Sub-Component 3.2 Electricity Infrastructure (US\$20 million).** This subcomponent will finance consultancy services, equipment, and works for the emergency reconstruction needs of JIRAMA electricity network, especially the distribution network.

**Sub-Component 3.3 Future Contingency Emergency Response Component (US\$ 0 equivalent).** This subcomponent is introduced to allow for the potential activation of future CERCs if needed.



Table 1: Allocation of project Financing allocation by components before and after the AF

Component	Original RSSP Cost (US\$M)	RSSP after CERC activation (US\$M)	AF Cost (US\$M)	Total Project Cost with AF (US\$M)
Component 1. Improving Road Condition and Resilience	180	90	90	180
Component 2. Technical Assistance and Support to Roads and Transport Sector Reforms	20	10	10	20
Component 3. Contingency Emergency Response Component:	0	100	0	100
<b>Total</b>	<b>200</b>	<b>200</b>	<b>100</b>	<b>300</b>

Legal Operational Policies

Triggered?

Projects on International Waterways OP 7.50

No

Projects in Disputed Areas OP 7.60

No

Summary of Assessment of Environmental and Social Risks and Impacts

E. Implementation

14. **Implementation arrangements.** The Road Agency (RA) will continue to be the implementing agency of components 1 and 2 of the RSSP and hence of the AF which is a replenishment of component 1 in line with the arrangements of the parent project. A PIU was created and is operational under the RA and its key staff are hired and will continue to be responsible for day-to-day implementation of components 1 and 2 of the project and its AF. Meanwhile, it was decided to entrust the implementation of the activities under the CERC (component 3) to the PACT





PIU, which is housed within the Ministry of Public Works, and which has an ample experience implementing the PACT project, and which has a close rapport working together with the RA PIU in the roads sector.

15. The rationale for using the PACT PIU, which is currently managing the PACT project, as implementing agency for the CERC activities while having the Road Agency as implementing agency for the parent project is that Madagascar is embarking on reforms towards strengthening the capacity of the RA as the main government implementing agency for national roads, and the parent project as well as the recently approved Connecting Madagascar for Inclusive Growth were both entrusted to the RA within this logic of long-term reform and capacity building in the sector. However, given that the CERC activities need to be executed within a short period and involve multiple beneficiaries (railways, electricity, roads), the PACT PIU - housed within the Ministry of Public Works - was entrusted with these activities to facilitate intersectoral collaboration and to manage the overall workload and enhance the absorption capacity in the sector between two existing and competent PIUs, while continuing to empower and build the capacity of the RA within this long term vision of sector reforms.

16. The PACT PIU will reinforce its team by recruiting additional dedicated staff for the implementation of the CERC related activities, notably a procurement specialist, an environmental specialist, a social specialist, and an accountant. A dedicated account will be created under the RSSP project to be managed by the PACT PIU for the implementation of the CERC activities. A Project Technical Committee, involving representatives from the Ministry of Finance, the Ministry of Public Works, the Road Fund, and the Road Agency already exists to ensure the overall oversight of the RSSP project and the approval of its PTBA, including its CERC component, and its role and composition will be maintained for the whole of the RSSP project including its CERC. In order to bring closer coordination with other technical beneficiary agencies, such as JIRAMA and Madarail, and to ensure the flow of information and their technical support during the project implementation, a Coordination Committee being created – at a technical/working level – which includes representatives from the Ministry of Finance, Ministry of Public Works, Roads Agency, JIRAMA, and Madarail. The role of the coordination committee is to ensure the technical coordination of the CERC, including a closer involvement by JIRAMA, Madarail, and the Road Agency in the technical review and evaluation of respective activities to which they are beneficiaries.

## **CONTACT POINT**

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**APPROVAL**

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**Note to Task Teams:** End of system generated content, document is editable from here. *Please delete this note when finalizing the document.*

